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ROBERT D. JEWETT, M. D.

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INDEX.

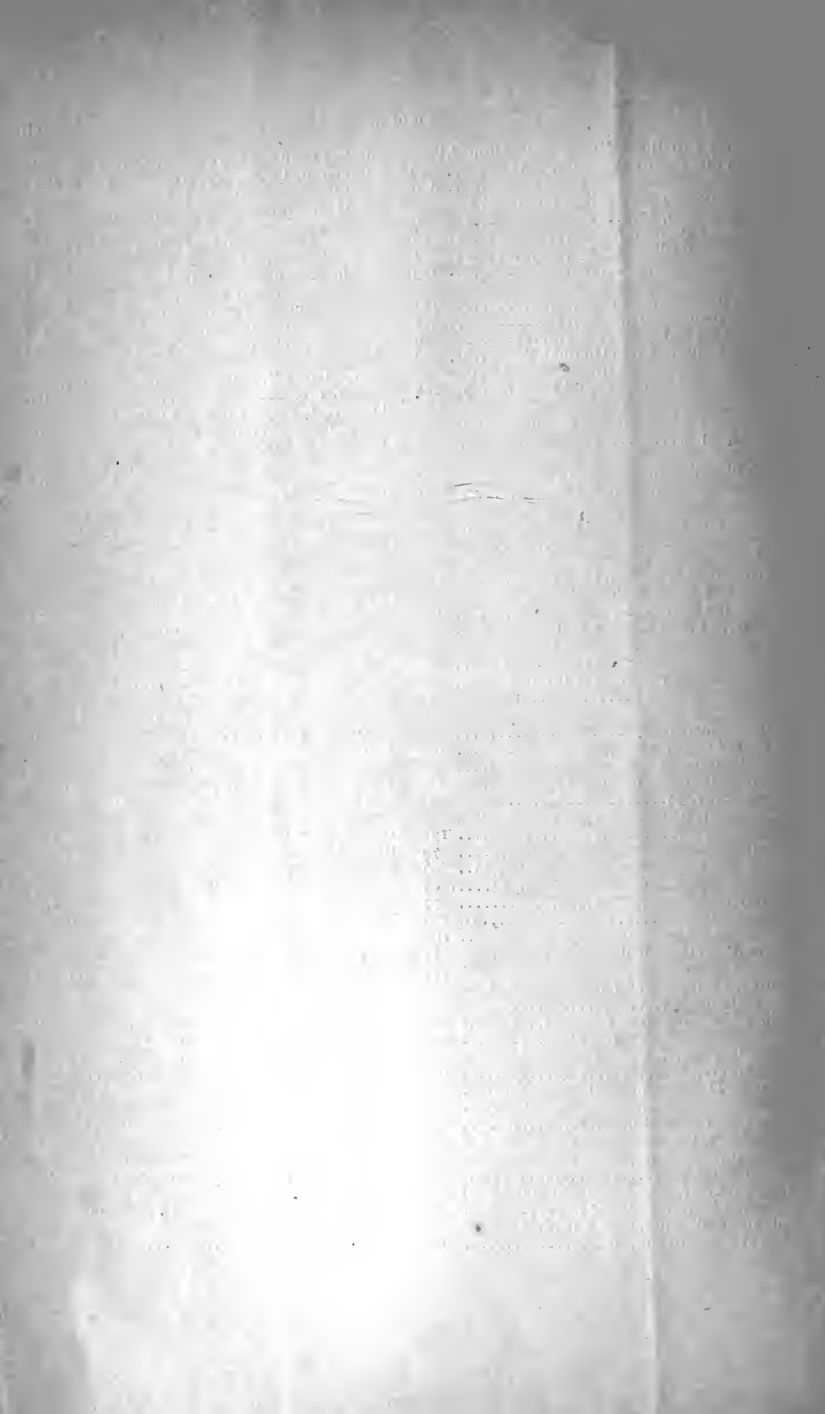
ACETANILID in medicine and surgery, the use of, 34.....	74	CACTUS grandiflorus, 34.....	173
Alexander, Annie L., Physical development and training of girls, 34.....	51	33	153
Alexander—Aliquie operation, Kocher's modification of, 33.....	216	Cancer, early diagnosis and surgery of, Carbolic acid, safety in using strong, 33..	254
Alvarenga prize, 34.....	236	Carcinoma, pathology of, 34.....	177
American Academy of Railway Surgeons, 34.....	232	Castration, the effect of, upon women, 33,	29
American Association of Obstetricians and Gynecologists, 7th annual meeting of, 34.....	223	Cataract cases and operations, etc., 33.....	61, 147
American Electro-Therapeutic Association, 33.....	113	Cerebral abscess in an infant, 33.....	252
Anæmia, the pathology of, 34.....	72	localization, 33.....	258
Anal fissure in children, 33.....	219	Chisolm, J J, analysis of 16th year's work in Presbyterian eye, ear and throat hospital, 33.....	244
Analysis of 16th year of work Presbyterian eye, ear and throat charity hospital, 33.....	244	Chloral hydrate; some of its uses, 34....	28
Animal extract, sad mishap with, 34....	127	Chloroform, the cause of death from, 34..	135
Announcement; the JOURNAL a semi-monthly, 34.....	259	Cholera infantum, symptoms and treatment of, 34.....	36
An unusual case, 33.....	199	Chronic urethritis, why it is difficult of cure and a method of treatment, 33..	247
Aphonia and paralysis of the pharynx and velum, cases of hysterical, 33.....	4	Clavicle, apparatus for fractured, 33.....	144
Appendicitis, cases of, 33.....	1	Cobb, W H H, President's message, 34....	1
the bacterium coli commune a cause of, 33.....	220	Coggin, Wm Thos., 34.....	30
Appendix vermiformis, inflammation of, 33.....	18	Compound depressed fracture of nasal and neighboring bones, 33.....	194
At last, 33.....	170	Conjunctivitis, mild, 33.....	142
BAHNSON, H. T., three cases of uterine fibroids, 33.....	139	Consumption, restriction of, 34.....	39
Barker, T. Ridgeway, when is the administration of strychnia contra-indicated during gestation? 34.....	218	DABNEY, Professor W.C, 34.....	145
Baruch, Simon, the rationale of hydrotherapy, 34.....	154	Daves, Graham, North Carolina doctors in the colonial army, 34.....	88
Battle, K. P., some critical points in eye practice, 34.....	147	Diarrhoea, salol in, 33.....	129
Battle, S. Westray, suggestions on the prevention of tuberculosis as we know it to-day, 34.....	212	Diphtheria, anti-toxin treatment of, 34....	230
Beall, W. P., the use of proprietary remedies by the physician, 33.....	182	report on pathology and prevention of, 34.....	266
"Between you and me," 34.....	271	treatment of, 34.....	177
Bitting, B. T., case of puerperal septicæmia, 33.....	146	Dropsy, glycerine in, 34.....	140
Bladder, examination of the female, 33..	265	Duffy, Francis, work of the board of medical examiners from 1885 to 1890, 33	43
Board of health bulletins second-class matter, 34.....	136	EAR, eye and throat diseases, cases in 33.....	7
Board of health, Salisbury meeting of, 34,	180	Eleventh international medical congress, 33.....	208
Board of medical examiners, meeting of, 33.....	265	Ellis, R C, paralysis following labor in a primipara, 33.....	253
Board of medical examiners, review of work done from 1885 to 1890, 33.....	43	Enterectomy by Paul's method, 33.....	261
Brain, recovery after pistol-ball passes through, 34.....	80	Entero-laparotomy, case of, 33.....	189
Brodnax, B H, chloral hydrate; some of its uses, 34.....	28	Ether and its relation to the kidney, 34....	176
Bulletin of the board of health, 33.....	223	Examination of uterus, ovaries and tubes, advantage of atmospheric distension of rectum in, 34.....	276
		Eye practice, some critical points in, 34... 147	
		FAISON, W F, conservative surgery of the hand, 34.....	69
		Family physician in relation to certain features of the hereditary factor of disease, 34.....	16
		Fibroid, removal of a large, 33.....	144
		Fistula in ano, operation for radical cure of, 34.....	34

- Fitch, W E, compound depressed fracture of the nasal and neighboring bones, 33..... 194
 the prevention and cure of perineal lacerations, 34..... 205
 Fractures into joints, immobilization of, 34, 132
 of the lower extremity, treatment of, 33..... 132
 Fuller, Dr Francis Taylor, 34..... 191
- GANGRENE of the lung following an attack of pleuro-pneumonia, 34..... 217
 Gas, a new elementary, 34..... 133
 Gastroplication, 34..... 136
 Gavage in treatment of acute disease of infancy, 33..... 218
 Gestation, when is the administration of strychnia contra-indicated in, 34..... 218
 Gibbon, R L, extirpation of the kidney, 33, 192
 hydrotherapy, 34..... 105
 Gibson, M W, a case of intestinal obstruction, 33..... 102
 Glaucoma, a clinical note on, 34..... 22
 Goelet, A H, endometritis, menorrhagia, etc., 33..... 200
 Goelet, E B, gangrene of the lung, 34..... 217
 Goodell, William, 34..... 236
 Granular endometritis, menorrhagia, dysmenorrhœa, 33..... 200
 Gynæcology, certain erroneous principles in, 33..... 258
- HÆMATOMA of the sacrum, 34..... 153
 Hæmostatic, calcium chloride as a, 34..... 139
 Hand, conservative surgery of the, 34..... 69
 Haywood, Dr E Burke, 33..... 85
 Headache, potassium bromide and sodium salicylate in, 33..... 221
 Hernia, value of coughing taxis in reduction of, 34..... 278
 Hill, Thomas, our indigenous materia medica, 34..... 25
 Hines, P E, case of entero-laparotomy, 33, 189
 Honor to whom honor is due, 34..... 41
 How shall the physician treat pulmonary tuberculosis at home, 34..... 8
 Human milk, the secretion of, 33..... 260
 Hyatt, H O, hæmatoma of the sacrum, 34, 153
 removal of large fibroid; apparatus for fractured clavicle, 33..... 14
 the situation in North Carolina, 33..... 174
 Hydrotherapy, 34..... 105
 the rationale of, 34..... 154
 Hysterectomy, abdominal with treatment of pedicle by intra-peritoneal method, 33..... 127
 ILIAC abscesses, exhibition of cases illustrating the operative treatment of, 34, 258
 Indigenous materia medica, our, 34..... 25
 Internal hæmorrhoids, treatment of as practiced by American surgeons, 34.. 168
 Intestinal hæmorrhage in typhoid fever, family predisposition to, 34..... 119
 Intestinal obstruction, a case of, 33..... 102
 diagnosis and treatment of, 33.... 125
- Irwin, J R, ptomaine poisoning and gastrointestinal antiseptics, 34..... 55
- JONES, JOSEPH, chemical properties, etc., of sulphurous anhydrid, 33..... 95
 red iodide of mercury in syphilis, 34..... 89
 Julian, C A, new remedies, 33..... 55
- KIDNEY, extirpation of, 33..... 92
 new method of examining, especially for stone, 33..... 105
 surgery of, 34..... 99
 Kollock, Cornelius, complications in ovariectomy, 34..... 23
 Kollock, C W, necessity of legislation for the prevention of blindness in South Carolina, 34..... 67
- LABOR, morphia in, 33..... 12
 Letter of the law, 33..... 129
 Lewis, Bransford, why chronic urethritis is difficult of cure, 33..... 247
 Lewis, R H, clinical note on glaucoma, 34, 220
 poisoning from spider bite, 34..... 167
 Liver, anti-toxic action of the, 34..... 281
 Lott, H S, morphia in labor, 33..... 12
- MALARIAL hæmaturia, etiology, pathology and treatment of, 34..... 129
 Malpractice defined by the law, 33..... 158
 Mayer, O B, progress in surgery, 34..... 63
 Mays, Thomas J, ice-cold applications in acute pneumonia, 34..... 251
 McKee, T J, inflammation of the vermiform appendix, 33..... 18
 Meat preservatives, 33..... 167
 Medical practice laws, 33..... 79
 Society of N. C., 33..... 263
 meeting of, 33.. 171
 annual meeting of, 34..... 41
- Membranous croup, 33..... 128
 Memminger, Aillard, the land of the sky, 33..... 237
 Mental disease, hypnotics in, 34..... 276
 Meriwether, T F, treatment of post-partum hemorrhage, 33..... 103
 Midwives, registration of, 33..... 226
 Miscellaneous items, 33-40, 87, 133, 187, 233
 278; 34-48, 92, 143, 187
 237, 285.....
- Morphine poisoning, permanganate of potassium in, 34..... 38
 Morphinismus, atropine in, 33..... 262
 Myers, H L, strabismus, its effects upon vision, etc, 34..... 247
 Myomectomy; treatment of pedicle after, 34..... 174
- NAPIER, J L, typhoid fever, 33..... 242
 Nasal obstructions a cause of disease in the eye as well as in the ear, 34..... 21
 Necessity for legislation for the prevention of blindness, 34..... 67
 Nephritic colic, olive oil in, 33..... 219

New journals, 33.....	172	READING as a therapeutic agent, 33.....	257
remedies, 33.....	55	notices, 33-41, 90, 137, 188, 236, 283	
Nichols, C G, cerebral abscess in an infant,		34-50, 97, 146, 193, 242, 290	
33.....	252	Reagan, J A, treatment of spider bite, 34, 236	
Noble, Charles P, new method of exam-		Renal casts, clinical value of, 34.....	264
ing the kidney, 33.....	105	REVIEWS AND BOOK NOTICES:	
North Carolina a feeder of Northern spe-		About mushrooms—Palmer, 34.....	182
cialists and hospitals, 33.....	171	Advertiser's handy guide, 33.....	226
as a health resort, 33.....	118	Aid series, 33.....	267
doctors in the continental		Annual Univ. Med. Sciences, 33.....	121
army, 34.....	88	Aseptic surgical technique—Robb, 34..	232
the situation in, 33...174,	227	Auto-intoxication in disease—Bouchard.	
Nose, the, and its hygienic relation to the		33.....	267
body, 34.....	281	Care and feeding of children—Holt, 34, 87	
Notes of practice. 33-230, 276—34-90, 141,	185	Charaka samhita, 34.....	138
234, 282.....		Children, diseases of—Starr, 34.....	183
Not exactly, 34.....	86	Clinical diagnosis—Abrams, 33.....	266
OVARIOTOMY, complications in, 34.....	23	Dictionary of medicine—Duane, 33....	83
PAPER jacket, its history and application,		Foster, 33.....	267
34.....	134	Gould, 34....	184
Paralysis following labor in a primipara,		Ear, diseases of—Gleason, 34.....	274
33.....	253	Electro-therapeutics—Bigelow, 34.....	274
Parker, E F, nasal obstructions a cause of		catalogue, 33.....	83
diseases of the eye, 34.....	21	Eye, nose and throat, diseases of—Jack-	
Parker, F L, cases in ear, eye and throat		son, 34.....	234
diseases, 33.....	7	Genito-urinary diseases, syphilology and	
Parrish, Dr James, 33.....	86	dermatology—Morrow, 33...224...34,	233
Pate, W T, family predisposition to intes-		Gynæcology—Baldy, 33.....	122
tinal hemorrhage in typhoid fever, 34,	119	Robinson, 34.....	272
Pathological view of some of the acute		Hair and scalp, diseases of—Jackson, 33,	226
specific fevers, 34.....	113	Headache and neuralgia—Corning, 33..	225
Patterson, E L, the prevailing fevers of		How to use the forceps—Landis, 33....	124
Barnwell county, S. C., 34.....	61	International medical annual,33	268
Peacock's bromides, 33.....	228	clinics, 33...37...34....	233
Pelvic abscesses in women, pathology of,		Johns Hopkins hospital reports, 34....	234
34.....	274	Legal medicine—Hamilton, 33..84...34,	273
Perineal lacerations, prevention and cure		Materia medica and therapeutics—Bar-	
of, 34.....	205	tholow, 33.....	80
Peritoneal tuberculosis, new method of		Medical diagnosis—Musser, 33.....	225
treating, 33.....	167	Naso-pharyngeal diseases—Spencer, 34..	87
Peri-uterine inflammation, treatment of,		National dispensatory, 33.....	37, 173
34.....	277	Nervous diseases—Shaw, 33.....	268
Physical development and training of		exhaustion—Beard-Rockwell,	
girls, 34.....	51	33.....	123
Piles, new operation for 34.....	82	Obstetric surgery, 34.....	139
Pneumonia, ice-cold applications in, 34..	251	One hundred years in business life, 34..	138
treatment of croupous, 34....	173	Ophthalmology—Norris-Oliver, 33.....	37
Porcher, W P, case of hysterical aphonia,		Savage, 33.....	123
33.....	4	Pharmacy—Sayre, 33.....	268
Post-partum hemorrhage, treatment of, 33,	103	Physiology—Raymond, 34.....	272
President's message, 34.....	1	Practice of medicine—Pepper, 33.....	173
Prevailing fevers in Barnwell county, S. C.		Prompt aid to the injured—Doty, 34.,	88
34.....	61	Psychology—Burr, 34.....	87
Prolapse of the uterus, treatment of, 33..	191	Reference hand-book of the medical sci-	
Proprietary remedies, use of by the phy-		ences—Buck, 33.....	35
sician, 34.....	47		
Prostate, new remedy for enlarged, 33....	133		
Ptomaine poisoning and gastro-intestinal			
antiseptics, 34.....	55		
Pulmonary tuberculosis, climate of west-			
ern North Carolina, with a considera-			
tion of the relative value of high and			
medium altitudes in the treatment of,			
33.....	23		
Pyosalpinx susceptible of spontaneous			
cure, is, 33.....	71		

REVIEWS AND BOOK NOTICES—(continued.)

- Skin diseases of the—Hyde, 33..... 36
 Morris, 34..... 139
- Surgery and bandaging, minor—Whar-
 ton, 33..... 36
 Ashhurst, 33..... 82
 Gallaudet, 33..... 81
 Senn, 33..... 123
- The physician's wife, 33..... 124
- Therapeutics—Hare, 34..... 272
- The strike at Shane's, 33..... 36
- Transactions Amer. Ophthal. Society, 33, 82
 Southern Surg. and Gynæ-
 cological Association, 33, 268
- Urinalysis and urinary diagnosis—Pur-
 dy, 34..... 88
- Visiting list, the physician's, 34..... 272
 Weekly Review, 34..... 271
- Where to send patient's abroad—Linn,
 34..... 183
 Women, diseases of—Garrigues, 34.... 87
- Rheumatism, salophen in, 34..... 132
- Riddick, T M, pathological view of some
 of the acute specific fevers, 34..... 113
- Royster, H A, glycerine in dropsy, 34.... 140
 peculiar case requiring vagi-
 nal hysterectomy, 34.. 250
 report of clinical lecture,
 33..... 16
- Salpingo-ovariitis, 34..... 35
- Scapulo-humeral palsy, 33..... 130
- Scopolamine, the new mydriatic, 34.... 83
- Septicæmia, case of puerperal, 33..... 146
- Serotherapy, 34..... 82
- Skin, absorption of salicylic acid by the,
 33..... 131
- Small-pox in charity hospital, 33..... 70
 personal experience with, 33.. 66
 postal transmission of, 34.... 84
- Society matters, 33..... 77
 prizes, 33..... 33, 120
- Some needed legislation, 33..... 168
- South Carolina Medical Association, 33, 213
 222, 274
- Southern Surgical and Gynæcological As-
 sociation, 33..... 25
- Spider bite, poisoning from, 34..... 167
 treatment of, 34..... 236
- Stancell, R H, Jr, some recent ideas in
 surgery, 34..... 195
- Stanton, D A, an unusual case, 33..... 199
 puerperal eclampsia, 33... 91
- State board of health, 34..... 270
- Strabismus, its effect upon vision, 34.... 247
- Strychnia as a respiratory and cardiac
 stimulant, 34..... 71
- Sugar in urine, some common sources of
 error in testing for, 34..... 80
- Sulphur and sulphurous anhydrid chemi-
 cal properties of, 33..... 95
- Sulphur in surgery, 33..... 217
- Summerell, Dr J J, 33..... 84
- Stricture, water pressure in impassible,
 34..... 29
- Surgery, progress in, 34..... 63
 some recent ideas in, 34..... 195
- Surgical clinic, 33..... 16
- Syphilis, red iodine of mercury in, 34.... 89
 treatment of, 33..... 107
 value of mercury and iodine of
 potassium in, 34..... 268
- Systematic study, 34..... 85
- Templeton, J M, two cases of tracheotomy,
 33..... 196
- Tiffany, L McL, surgery of the kidney,
 34..... 99
- The land of the sky, 33..... 237
- The new year, 33..... 38
- Tracheotomy, two cases of, 33..... 196
- Treatment of inoperable malignant tu-
 mors with the toxines of erysipelas
 and the bacillus prodigiosus 34..... 178
- Tuberculosis, contagiousness of, 34..... 124
 prevention of, 33..... 259
 suggestions on the preven-
 tion of, 34..... 212
- Typhoid fever, 33..... 242
 importance of disinfecting the
 bowel discharges, in, 34..... 243
 treatment of, 33..... 15, 83, 131
 tincture ferri chloridi in, 34..... 34
- Vaginal hysterectomy, a peculiar case re-
 quiring, 34..... 250
- Von Ruck, Karl, climate of western N. C.
 in treatment of consumption, 33..... 23
- Von Ruck, Karl, how shall the physician
 treat consumption at home? 34..... 8
- Ureter, the surgery of the, 33..... 255
- Uterine fibroid, three cases of, 33..... 139
 prolapse, operation for, 34..... 4
- Wakefield, W H, mild conjunctivitis, 33.. 142
- Way, J H, the family physician in relation
 to certain features of the hereditary
 factor of disease, 34..... 16
- Water analyses, 34..... 279
- Whale's milk, 34..... 175
- White, J A, cataract cases, etc, 33.... 61, 147
 J Wm, surgical clinic, 33..... 16
- Whitehead, R H, two cases of appendi-
 citis, 33..... 1
- Why people become deaf, 34..... 282
- Wilmington city hospital, 33..... 120
- Wilson, A R, importance of disinfecting
 the bowel discharges in typhoid fever,
 34..... 243
- Wright, J T, modern treatment of typhoid
 fever, 33..... 15
- Young, James K, exhibition of cases illus-
 trating the operative treatment of iliac
 abscess, 34..... 258



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Table of Contents, - - Page 5.)

Index to Advertisers, - Page 6.)

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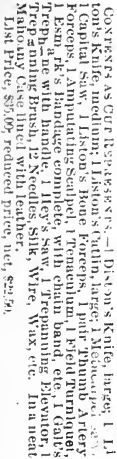
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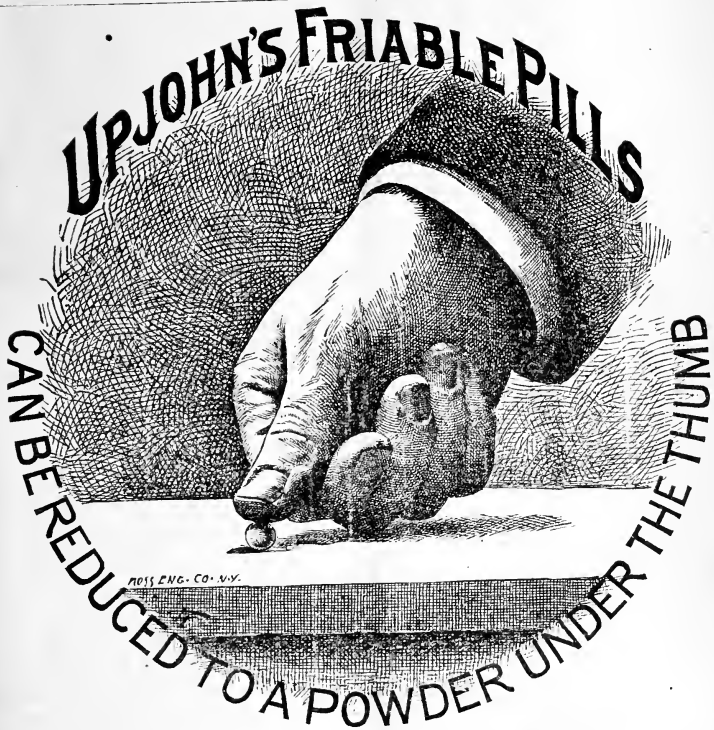


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Table of Contents.

Original Communications :

Two Cases of Appendicitis— <i>R. H. Whitehead, M. D.</i>	1
Cases of Hysterical Aphonia and Paralysis of the Pharynx and Velum— <i>W. Peyre Porcher, M. D.</i>	4
Cases in Eye, Ear and Throat Diseases— <i>Francis L. Parker, M. D.</i>	7
Some Accidents in Labor Treated with Morphia— <i>H. S. Lott, M. D.</i>	12
The Modern Treatment of Typhoid Fever— <i>J. Thomas Wright, M. D.</i>	15

Clinical Lecture :

Surgical Clinic at the University Hospital—Barker's Operation for Fractured Patella—Incomplete Castration—Tapping Hydrocele—Radical Cure for Hernia— <i>J. William White, M.D.</i>	16
--	----

Society Reports :

Edgefield County (S. C.) Medical Society—Inflammation of Vermiform Appendix— <i>T. J. McKee, M. D.</i>	18
Pan-American Medical Congress—The Climate of Western North Carolina, with a Consideration of the Relative Value of High and Medium Altitudes in the Treatment of Pulmonary Tuberculosis— <i>Karl von Ruck, M. D.</i>	23

Southern Surgical and Gynecological Association—The Conservative Treatment of Pyosalpinx— <i>C. Kollock, M. D.</i> —The Incision in Abdominal Section— <i>Joseph Price, M. D.</i> —Is Operation Demanded in all Cases of Appendicitis?—The Best Time to Operate— <i>A. M. Cartledge, M. D.</i>	25
--	----

Selected Papers :

The Effect of Castration on Woman, with other Problems in Gynecology— <i>William Goodell, M. D.</i>	29
---	----

Reviews and Book Notices :

Reference Hand-Book of the Medical Sciences— <i>Buck</i>	35
Minor Surgery and Bandaging— <i>Wharton</i> .—The Strike at Shane's—A Practical Treatise on Diseases of the Skin— <i>Hyde</i>	36
International Clinics—A Text Book of Ophthalmology— <i>Morris-Oliver</i> .—New Edition of the National Dispensatory	37

Editorial :

The New Year	38
Miscellaneous Items	40
Reading Notices	41

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Index of Advertisers.

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Fairchild Bros. & Foster.....	Cover	1	E. A. Yarnall Co.....	18
Parke Davis & Co.....	"	1	Wheeler Chemical Works	18
Combination Offer.....	"	2	H. A. Tucker & Bro.....	18
Mr. Fellow.....	"	3	C. F. Boehringer & Soehne	19
N. Y. Pharmacal Co.....	"	4	Retreat for the Sick.....	20
W. H. Schieffelin & Co.....		1	St. Luke's Home	20
Isaac Phillips.....		2	H. O. Hyatt, M. D	20
The Upjohn Pill and Granule Co.....		3	W. Scott Marshal, M. D.....	20
Sharp & Dohme.....		4	Wilmington City Hospital.....	21
Henry K. Wampole & Co.....		5	Canton Surgical Chair Co.....	22
.....		6	Philadelphia Opt. and Watch Co.....	23
Purcell, Ladd & Co.....		7	Codliver Glycerine Co.....	23
Virginia Pharmacal Co.....		7	H. H. Ballard	23
Southerland		8	Svapnia.....	23
Antikamnia Chemical Co.....		8	Rio Chemical Co.....	24
McArthur Hypophos. Co.....		8	Mariani & Co.....	25
Renz & Henry.....		9	Geo. K. French & Sons.....	25
Dr. N. B. Shade		9	Walker-Green Chemical Co.....	25
The Doliber Goodale Co		10	Lambert Pharmacal Co	26
Wm. R. Warner & Co.....		11	N. Y. Pharmaceutical Co	27
Peacock Chemical Co—Sultan Drug Co.....		12	Hamburg-American Packet Co.....	27
Battle & Co.....		13	Thos. F. Goode	28
The Sanitarian.....		13	Maltine Mfg. Co.....	29
Od Chemical Co.....		14	E. V. Richards.....	29
Julius Fehr, M. D.....		14	Harris Lithia Water.....	30
Kentucky School of Medicine.....		15	Angier Chemical Co.	31
Bellevue Hospital Medical College		15	Medical and Surgical Reporter.....	31
University of Virginia.....		15	Scott & Bowne.....	32
University of Pennsylvania.....		16	McIntosh Battery Co.....	32
University of North Carolina—Med Dept ..		16	Sneed & Co.....	33
Bartlett, Garvens & Co.....		16	Vaccine Virus.....	33
College Physicians and Surgeons, Rich.....		17	C. N. Crittenton.....	34

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VOL. XXXIII.

WILMINGTON, JANUARY, 1894.

No. I.

Original Communications.

Contributions to this Department are solicited, especially from the profession of North and South Carolina.

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TWO CASES OF APPENDICITIS.

By R. H. WHITEHEAD, M.D., Chapel Hill, N. C.

Case 1.—On April 20th, 1893, I saw Mr. R. B. L., in consultation with Dr. A. B. Robertson. He had been sick a week with what seemed to be a mild attack of appendicitis. Together with the usual symptoms of such attacks the "McBurney point" of tenderness was most distinctly marked. A small spot, not more than an inch in diameter, on a line from the anterior superior spinous process of the ilium to the navel, was so exquisitely sensitive that the patient would instinctively knock away the examining finger before it had touched him. Pressure elsewhere elicited no pain whatever. His treatment was simply opium, when necessary to relieve pain, and attention to diet. He was soon out of bed and at his work.

July 11th he sent for me again. He had been in bed ten days with the same symptoms as before, except that now there was added a small tumor in the right iliac fossa. He had absolutely no

fever, but obscure fluctuation could be obtained. I advised an operation, which was declined. For the following ten days his condition remained about the same, the tumor gradually increasing in size. July 21st his temperature suddenly rose to 101° , and a beginning parotid bubo was observed. As I had to leave Chapel Hill at this time, I left the patient in care of Dr. J. T. Wilson, with the understanding that I would return when consent to an operation could be obtained. By August 10th his condition was so grave that consent was finally given. I found him with an enormous abscess filling the right iliac and the hypogastric regions, and extending as high upward as the navel. The abscess was clearly intraperitoneal, shut in by the convolutions of the small intestine. The parotid bubo, which had been incised by Dr. Wilson, was still discharging. The surface of the body was cold and clammy, the temperature

subnormal, and the heart's action quick and feeble. The patient was prepared for operation with all antiseptic precautions possible under the circumstances, and anesthetized with chloroform. As we were about to begin the operation, the patient's respiration ceased, and artificial respiration was necessary for about fifteen minutes. As soon as breathing was restored, I made a rapid incision down to the peritoneum, and as soon as this was opened, excessively offensive pus gushed out in great quantity. At least a quart was evacuated. No fecal matter could be found in it. A hasty examination with the finger failed to detect the appendix. Having, unfortunately, forgotten to bring gauze with me, two rubber drainage-tubes were inserted, and a moist carbolic acid dressing was applied. The next day he had reacted well, and his condition was much more favorable. I saw him no more until September 7th. No pus had passed through the tubes (which had been gradually shortened) for several days, and the belly was considerably distended, especially near the navel, where there were some signs of pointing. The abscess cavity had been divided into two parts, doubtless by adhesions, the part in communication with the tubes having drained freely. The distended portion was drained as before, and the patient made a rapid recovery. I was informed that a few days after the first operation a black substance about four inches long and of the size of a lead-pencil escaped through the drainage-tubes, which may have been the gangrenous appendix.

Numerous as are the disputed points in the treatment of appendicitis, there can be no question as to our duty when once pus is ascertained to be present, and this case is merely an example of what risks mortal man may sometimes take without losing his life. Patient as

nature may be, it can be only seldom that the protecting wall of adhesions will be found strong enough to endure such a strain, and prevent perforation into the general peritoneal cavity.

It is worthy of note that in this case there was no elevation of temperature until the appearance of the parotid bubo. We generally expect suppuration to be accompanied by rigors and fever; in this case, however, the local signs were unmistakable.

It is rather singular that out of the small number (six) of cases of appendicitis which I have attended, two developed parotid buboes. These are generally septic, but in one of my cases there was not the slightest evidence of septicæmia; and I have known a parotid bubo to be developed as the result of a simple kick upon the belly. The etiology of such cases is very obscure. Stephen Paget (quoted by Osler) cites 101 cases of this kind, "of which 10 followed injury or disease of the urinary tract, 18 were due to injury or disease of the alimentary canal, and 23 were due to injury or disease of the abdominal wall, the peritoneum or the pelvic cellular tissue." He adds that this form of parotitis "is not, as a rule, associated with signs of septicæmia or pyæmia."

We know that the *bacteria coli commune* is a constant inhabitant of the ileum and colon, and that it has been found in abscesses not only of the appendix and liver, but also of more remote parts—notably of the lower jaw. It may be that as a result of the injury or disease of the intestine, this bacterium finds its way into the circulation, and thus some of these cases may be explained.

I hold with those who believe that extensive search for the appendix in the presence of abscess is unnecessary and dangerous, and I am certain that this patient would have died had I persisted

in the search. Ransohoff (quoted in the *Amer. Jour. Med. Sciences*, December, 1893) says: "I have never lost a case of abscess. I do not look for the appendix. If it is in the abscess I remove it. If adhesions are present, I let the appendix alone."

I think the history of this case, subsequent to the operation, furnishes an argument for the employment of gauze drainage. Had I packed the cavity with gauze, it is hardly probable that it would have become subdivided by adhesions.

Case 2.—Miss A. S. was taken suddenly ill on the night of October 20th with severe colicky pain and vomiting. As she was a dyspeptic, and subject to similar attacks, no apprehension was felt by the family, and a doctor was not summoned until the following day, when she was seen by Dr. John Whitehead. The pain and nausea had disappeared, but her breath was bad and her tongue coated. She was given some small doses of calomel, which acted well. Monday, 23d, she complained of a "stitch" in the right iliac fossa, and examination showed "McBurney's point" marked. It was now learned that she had eaten heartily of grapes a few days before. Fever came on steadily, pain increased, and by the 27th it was believed that pus was present. The pain was paroxysmal and most excruciating, so that very large doses of morphine only mitigated it. On the 29th preparations were being made for operation, when the pain suddenly ceased, fever became much lower, and the patient expressed herself as feeling much better, and called for food. A large evacuation of the bowels took place, and swelling and tenderness almost disappeared. The evacuation of the bowels was, unfortunately, destroyed before Dr. Whitehead saw it, but it was believed that an abscess had been discharged by the bowels. During the

next three days the patient seemed to be recovering. However, on the evening of the 31st, the pain returned and tenderness was great all over the right side. The fever became steadily higher until it reached $104\frac{1}{2}^{\circ}$. When I first saw her, on the night of November 2d, there was considerable abdominal distention, no dulness could be elicited on percussion, and the pulse 130 and soft. The tenderness was almost confined to the right side, where the muscles were quite rigid. We feared, but did not feel certain, that general peritonitis was present, and hoped that there was a secondary collection of pus so covered by the intestines as to be undiscoverable from the outside. The patient was accordingly prepared for operation, all antiseptic and aseptic measures, of course, being employed. I had the skillful assistance of Drs John Whitehead, H. T. Tratham and W. W. McKenzie. An incision of about four inches in length was made along the outer border of the right rectus, under chloroform anæsthesia, and was gradually deepened until the parietal peritoneum was reached, the incision being of considerable depth, owing to the large amount of subcutaneous fat. The parietal peritoneum was congested, and as soon as it was incised the convolutions of the small intestines came bulging out of the belly to be received in hot towels. Their peritoneal coat was fiery red, and we all recognized that general peritonitis was present and our operation of no avail. (It may be well to remember that this congestion is often the only macroscopic sign of the most septic peritonitis.) However, I continued the search for the appendix, which was soon found curled up in the back of the ileum, at least twice its natural size, its mesenteric surface closely plastered to the ileum, but elsewhere free; from the

tip of it a small drop of pus was oozing. There was not a single protective adhesion. The appendix was ligated close to the cæcum, and, owing to its close attachment to the ileum, snipped away with scissors, bleeding points being ligated *seriatim*. Its stump was thoroughly cauterized. No evidence of an opening into the cæcum or ileum could be found, nor was there any visible products of inflammation in the peritoneal cavity. The upper half of the removed appendix was filled with grape-seeds, the lower half, shut off from the upper, was filled with offensive pus, and two minute perforations were discovered. The wound was united, after the bowels had been returned with some difficulty, and the patient put to bed, the operation

having lasted nearly an hour. She bore the operation well, but it made no appreciable change in her condition, and she continued to sink, and died in about twenty-four hours after the operation, death being due to the septic peritonitis existing at the time of the operation.

Comment on this case is unnecessary; it is merely another example of the fact that operations are of no avail in the existence of general peritonitis. Brown-ing, however, has reported a successful case of operation for perforation in the presence of general peritonitis and collapse—the only case known to the writer.

I have thought it well to contrast these two cases as illustrating—the one how much, and the other how little, nature may do in appendicitis.

CASES OF HYSTERICAL APHONIA AND PARALYSIS OF THE PHARYNX AND VELUM.

BY W. PEYRE PORCHER, M.D., Charleston, S. C.

Read before the South Carolina Medical Association, April, 1893.

The first case which I will report occurred in a clergyman who was otherwise in excellent health, and could speak clearly and with ease in ordinary conversation, but immediately as he began to preach or attempt to raise his voice, he would become hoarse, and could with difficulty make himself heard. One application of the galvano cautery to an enlarged follicle on the posterior pharynx seemed to restore his voice for several weeks, as he described it, "in a startling manner." The aphonia had existed in this case for over four years, and still exists, as he refused to submit to the intra-laryngeal application of electricity.

The second case was that of a neurasthenic woman, aged about 26, upon

whom a variety of remedies were tried with varying success. She regained her voice for several months after an operation for the removal of an ecchondroma of the septum narium, but became aphonic again. Resort was then had to the intra-laryngeal application of electricity, which has so far sufficed to restore her voice whenever relapses have occurred. In this case and the one above, strychnine and other remedies were given until the constitutional effects of the drugs were seen, but there were no evidences of improvement in the aphonia.*

*Since writing the above I have had most excellent results from the intra-laryngeal application of electricity, even when the patient was totally aphonic.

Functional aphonia, hysterical or nervous aphonia, as indicated by the descriptive titles, is found generally in women, or persons who are compelled to make great use of the voice. Respiration, both inspiratory and expiratory, may be normal, but whenever the muscles concerned in phonation are called into play, the act either becomes very difficult or absolutely impossible. The truly hysterical cases are found generally in patients in whom sexual functions have become perverted. It is also often associated with loss of the power of articulation—the tongue and lips remaining perfectly still on attempts at phonation. It should not be supposed that this form of paralysis is an assumed one, and done with the intention of deceiving, although in most cases there is no pathological lesion to account for it. The patients are in most instances entirely unable to phonate above a whisper.

Examination by means of the laryngoscope reveals perfect coaptation of the vocal bands, resembling somewhat that seen in bilateral paralysis of the recurrent laryngeal nerves. The subjective symptoms simulate acute and sub-acute laryngitis, the presence of a foreign body in the larynx, or any growth which would interfere with the close approximation of the vocal cords. These conditions can all be differentiated with the laryngeal mirror. In recurrent laryngeal paralysis the cords lie in the cadaveric position and are absolutely motionless, all of the intrinsic muscles being paralyzed, while in hysterical paralysis the cords are freely movable during respiration. Pure bilateral paralysis of the abductors is an extremely rare affection.

Bosworth states that a cough is usually found in the hysterical variety, but is entirely lost in the genuine paralysis.

In the two cases treated by the author, however, this symptom was absent. When the paralysis comes on in a healthy woman and is intermittent, it is usually the hysterical variety, but it is often constant, so that this is not a diagnostic symptom of great value.

The prognosis is very favorable. Cases have been known to be cured in which complete aphonia had existed for six, eight and ten years. The cases are, however, very intractable and relapses are liable to frequently occur.

Emotional influences are often sufficient to cure these cases, and the physician should therefore exert every effort to secure the confidence of his patient, and convince her not only that she has a veritable malady, but also that it is entirely curable. Stimulating inhalations of ammonia or chlorine, the application of pigments, argentic nitrate or perchloride of iron (3 j to ij— $\bar{3}$ j), will prove of service in many cases. By far the most efficient of all remedies, however, is the intra-laryngeal application of galvanic or faradic electricity, or some sudden shock.

Paralysis of the Pharynx, Soft Palate, Tongue and Lips, from Progressive Bulbar Disease.—The patient was a minister, who had been subject to very severe and prolonged mental strain from continuous preaching and teaching, with exceedingly poor nutrition during several years. He had had five or six attacks of unconsciousness, the character of which he could not exactly describe, but not followed by any prolonged stupor. The first indication of any throat trouble was a difficulty of pronunciation, and this was the only sign of the disease after the recovery from the attacks of insensibility. He consulted a specialist, who diagnosed a nasal obstruction of some kind, and operated for its removal. This was fol-

lowed by a pretty severe hemorrhage, which returned at intervals for several months. On applying to me for treatment, his condition was as follows: There was very evident loss of motion in the lips and cheeks. The nostrils were free from obstruction of any kind, and there was absence of nasal intonation in the voice. There was, however, a complete loss of laryngeal timbre, the voice sounding as though there was some obstruction just above the glottis. Inspection revealed a marked drooping of the palate and pillars of the fauces. This the patient told me he could overcome by a considerable effort, and the voice would then regain, to a certain extent, its normal resonance. He was advised to use strychnine, grs. 1-20, internally, three times daily, and applications of electricity to the soft palate, and as far back as he could tolerate the instrument. He received marked benefit from these applications, especially when they were made just before any effort at preaching. The patient moved away and I lost sight of the case.

This disease usually runs a slowly progressive course and lasts from two to six years. Death results from inanition or "foreign body pneumonia," by the aspiration of food into the air-passages. Cardiac symptoms may also be prominent from involvement of the nucleus of the pneumogastric; the pulse may either be excessively slow or the patient may have palpitation of the heart. Syncope may ensue, and re-

peated attacks of it may occur from which the patient may recover completely, as in the case above reported, but death may result from one of the attacks. The intellect is usually unaffected throughout the entire course of the disease. The respiratory organs may also be affected, violent attacks of dyspnœa may occur without apparently any exciting cause, which may prove rapidly fatal.

The diagnosis is not a difficult matter, on account of the suddenness of the attacks, the locality of the resulting paralysis and the chronic nature of the disease. It might be confused with bilateral facial paralysis, but the fact of the paralysis being confined to the cheeks, would seem to fix the diagnosis, though tongue and fauces be unaffected.

The prognosis is almost always fatal. There may be brief remissions in exceptional cases, but the patient usually dies from inanition or pneumonia.

There is no treatment from which any permanent relief may be expected. Galvanism, strychnine, iodide of potassium and nitrate of silver have been recommended, but no good results have been obtained from them. When inanition is threatened, the patient must be fed with the œsophageal tube to prevent the passage of food into the larynx. Deglutition may be assisted by use of electricity, the anode being placed back of the neck, and the cathode on the side of the larynx.

CASES IN EYE, EAR AND THROAT DISEASES.

BY FRANCIS L. PARKER, M.D., Charleston, S. C.

Read before the South Carolina Medical Association, April 19th, 1893.

TRANSPLANTATION OF THE CONJUNCTIVA OF THE RABBIT TO THE HUMAN EYE, FOR SYMBLEPHARON ASSOCIATED WITH STRICTURE OF THE LACHRYMAL PASSAGES.

Case 1.—November 24th, 1892. Abner T., aged 11 years, referred to me by Dr. A. C. Varm, was injured in the left eye by caustic lye two years ago, resulting in symblepharon, with occlusion of the punctum and canaliculus of the lower lid. A year afterwards he was operated upon by a surgeon in a neighboring city without relief.

When he applied to me the greater part of the left lower lid was adherent to the globe infringing upon cornea and interfering with the movement of the eye. Owing to the attachment of the lid to the ball, the *cul-de-sac* was obliterated; the punctum and canaliculus being closed, lachrymation was profuse, with excoriation of the face. The right eye sympathized with its fellow by constant weeping. The patient's condition was painful, vision was greatly impaired, getting worse daily.

The conjunctiva of the lower lid and globe was so adherent and diseased, it was impossible, after removing it, to transpose adjacent healthy conjunctival tissue and fill up the gap thus exposed. This simple operation in properly selected cases gives admirable results. In this case relief depended upon the successful transplantation of new and healthy tissue. This was subsequently done before the class of the Medical College at my Eye and Ear Clinic, by transplanting the conjunctiva from a rabbit's eye.

The graft succeeded, and, after becoming firmly adherent, allowing free movement of the lower lid, the punctum and canaliculus were opened up in the usual way, the tear passages were restored, and the lad was discharged from the City Hospital relieved and comfortable.

I reported a similar case at the annual meeting of this Association in 1885, including a sketch of the history of this operation and the number of cases reported up to that time in this country. Those interested can refer to the volume of transactions for 1885. I would add, however, that in such delicate operations the closest attention must be paid to the minutest details, including antisepsis, or failure will result.

In the previous case referred to, I used animal sutures made of the tendons of the squirrel tail. In this one I used fine silk sutures, but prefer the former for reasons given in my previous article above referred to.

"Speaking of these sutures, I may digress to say that I use them habitually in all alterations upon the eye, usually requiring fine silk sutures, so as to avoid the necessity of cutting and removing them. In suturing the conjunctiva in the operation for pterygium; bringing forward the recti muscles, in canthoplasty (Agnew's Modification), or wounds of the eye-lids and face; and they are especially adapted to children, in many of whom the removal of silk sutures gives as much trouble as inserting them at the time of the operation. In one case I assisted in using them in suturing a

lacerated cornea, after removing the injured lens, and the globe was preserved intact. Union resulted in a leucomatous cornea; the sutures were absorbed. Latterly I have experimented with sutures made from the opossum's tail; one tail furnishes from twenty to thirty sutures, and as many short ones about the length of the longest squirrel tail sutures. The sutures of the opossum's tail are very strong, the largest can be split into three or four delicate ones, sufficiently strong for most operations about the eye or for suturing wounds about the eye-lids and face. The largest ones are applicable for many purposes in abdominal surgery, more particularly for securing the bleeding surfaces of adhesions of the peritoneum in ovariectomy, or for suturing wounds of the intestines, etc. They are stronger than catgut, produce absolutely no irritation, and are completely absorbed in from three to five days."—*Transactions South Carolina Medical Association*, 1885.*

LIGATION OF THE TEMPORAL ARTERY
FOR TINNITUS AURIUM—SUCCESSFUL.

Case 1.—M. A.; colored porter; aged 50 years; apparently in fair health; applied to me on the 13th of October, 1891, with tinnitus aurium of the most severe character, stating that he had been suddenly attacked about a week before.

He had consulted several physicians without relief, and had been unable to sleep more than a few moments at a time since the attack began. He com-

plained of incessant pain and various kinds of noises in his right ear—one more persistent and louder than the others was the constant singing of a gnat. The latter was particularly distressing, preventing sleep. He was miserable and wretched and literally haunted the office. The usual remedies in such cases failed to relieve him, frequent subcutaneous injections of morphine gave only temporary relief. The drum membrane was punctured on the 15th and gave some temporary relief. On the 17th the symptoms were as violent as ever, in spite of repeated doses of opium. The drum was punctured a second time freely with the same results, the pain and noises were lessened for a short time, and he slept several hours with the aid of anodyne.

On the morning of the 18th he was early at the office clamorous for relief in some way, and even threatened committing suicide—a very uncommon occurrence now in the colored race in the Southern States. I then ligated the *right* temporal artery (the ear affected), as it crosses over the zygomatic process, using a hypodermic of the muriate of cocaine, 4 p. c., and tying the vessel with a catgut ligature. In a few moments the pain and violence of the noises in the ear moderated, and in half an hour he was more comfortable than at any time since the attack began, except when enough under the influence of opium "to snatch a few winks of sleep."

Searching for the cause of this sudden invasion of the integrity of an ear previously healthy, I detected sugar in the urine in large quantities.

While *tinnitus aurium* is reckoned among the symptoms of diabetes, it must be extremely rare. This is the first instance I have encountered in a practice of twenty-five years, and, while I have seen in that period only a few

*The above extract about animal sutures is inserted here in connection with the interesting account given by Dr. Henry O. Marcy of Boston, of his experiments with "Kangaroo sutures," which he uses in his operation for inguinal hernia, as described in his admirable address on that subject at this meeting of the Association at Sumter, S. C., April, 1893.

cases of diabetes, I have not met with these pronounced ear symptoms in any previous case, nor have I by inquiry among my colleagues heard of another similar case.

The patient was placed upon the usual treatment for diabetes, with gluten flour for his bread, and, after a tedious illness of about a year, the patient was able to resume his duties as porter. There is still about the same amount of sugar in his urine as when it was first discovered and when he was suffering most. The tinnitus aurium gradually ceased, the constant "singing of a gnat" being the first to disappear.

The case is still under observation from time to time, but so far he has not had a return of the painful and distressing symptoms with which he was so suddenly attacked.

Ligating the temporal artery at the point described in this instance is easily done. Its success was satisfactory. It may be applicable to some cases of chronic tinnitus aurium which are occasionally met with, and which generally resist all kinds of treatment. I have had two such cases under observation for several years, but the patients, elderly ladies, decline to be operated on, preferring to

* * * "bear those ills we have
Than fly to others that we know not of."

HOT WATER APPLICATIONS IN THE TREATMENT OF THROAT DISEASES AND DEAFNESS FROM OCCLUSION OF THE EUSTACHIAN TUBE.

Middle-aged physicians, who have watched the gradual substitution of warm or hot in the place of cold water applications, in several classes of disease in the past twenty-five years, must have noticed how the former have almost entirely supplanted the latter, until now

warm or hot water is almost universally used. This change of treatment has been made by the surgeon, the gynecologist and oculist; hot water for controlling capillary hæmorrhage has taken the place of mineral styphics in minor or capital operations, in uterine, vaginal, rectal and certain eye diseases, notably in promoting softening or absorption of adventitious or thickened tissues, rendering them more amenable to treatment. All surgeons, whatever may be their especial line of practice, will accept this substitution of warmth for cold as one of the characteristic changes in these palmy days of bold and conservative surgery, save in the surgery of the throat and nasal passages.

In the treatment of this class of diseases, notwithstanding the rapid strides in the last decade, the specialists have, I think, overlooked the value of hot applications to mucous surfaces in the acute or chronic stages of disease in throat or nasal affections.

It may be suggested that with these organs such applications cannot be successfully used and may be contraindicated. In most cases of throat or nasal disease, whether acute or chronic, such applications can be applied advantageously. Most patients, on trying this treatment, experience relief and gradually overcome the unpleasantness of the remedies as the parts become more accustomed to them. In the acute stage of ordinary sore throat resulting from cold and exposure, or sometimes coming on suddenly without apparent cause, with inflamed pharynx and uvula, accompanied by painful deglutition and speech, with dryness and rasping in swallowing, with or without fever, in accordance with the severity of the case, hot applications have a soothing and curative effect apart from any local medication. Such cases rarely come

under the care of specialists except in cities; they are usually treated at home by domestic remedies, mostly gargles of some kind, or, if persistent, the family physician is consulted.

The majority of such cases are relieved promptly by an application of nitrate of silver in solution, 10 or 20 grains to the ounce of water, applied freely over the inflamed surfaces with a probang of absorbent cotton, followed at once by a similar application of a common salt solution, a drachm to the pint of water. The latter neutralizes the excess of caustic, relieves the pain consequent upon its application, and removes the metallic taste quickly, which, without the salt solution, lasts for hours, to the annoyance of the patient. The patient ought then to gargle the throat freely and regularly every two or three hours with water as hot as it can be borne, and the disease is usually cured in twenty-four to forty eight hours, rarely requiring more than one or two applications on successive days. In chronic pharyngitis with indurated thickened mucus follicles, with tenacious whitish slimy secretions, so annoying to patients, often associated with small indurated tonsils; in post-nasal pharyngitis, complicated with acute or chronic rhinitis, and often with deafness from closure of the Eustachian tubes; in all of these varied conditions simple hot water gargles, or gargles with equal parts of a saturated solution of borax and hot water, exercise a local curative effect not fully appreciated by the laity or the profession.

In using these latter remedies for chronic pharyngitis, without reference to deafness, patients have repeatedly called my attention to their improvement in hearing, so that I regard their use an important adjuvant to the treatment of deafness from this cause. All

persons are familiar with the relief afforded by loosening up the phlegm in severe colds in the head by bathing the face in warm water, and the same relief is equally experienced in cases of acute and chronic pharyngitis by hot tea or coffee and hot food at breakfast, facilitating expectoration and the expulsion of slimy mucus from the naso-pharyngeal passages. It is rational to suppose that frequent repetition of hot applications will effect continued relief, and ultimately benefit the patient more and more.

I have seen so much improvement in deafness from closure of the Eustachian tube from catarrhal troubles in varied degrees from this simple remedy, that I regard it of great importance. This improvement occurs more particularly with ladies who will persevere in the use of this agent (more willingly, as it costs nothing), and they are rewarded by hearing better in ordinary conversation and in church in listening to sermons. The same is equally applicable to men, but they are not disposed to use the remedy long enough, as a rule, to test its usefulness practically. I append some cases briefly illustrating the views which I have expressed above.

Case 1.—Mrs. C., wife of a physician, aged 35 years, consulted me March 28th, 1893, for acute tonsillitis on both sides. I had several times attended her at intervals extending over several years for deafness dependent upon chronic pharyngitis, with more or less occlusion of the Eustachian tubes. Her deafness had for some time increased and treatment had been discontinued. Sitting in her chamber she could not hear her husband coming up stairs or enter her room till he approached and spoke loudly to her.

The acute attack of tonsillitis was treated without reference to her deaf-

ness. After lancing both tonsils and applying a solution of nitrate of silver, 20 grains to the ounce of water, followed by a solution of common salt, a drachm to the pint of water, I ordered frequent gargling with water, as hot as the patient could bear it. The tonsillitis was promptly relieved, and the hearing was so much improved that the patient continued, under my directions, to use the hot water gargling. In a short time she could hear her husband's step upon the stairs and hear conversation from the door across the room where she usually sat. Several similar cases keep up the gargling as a part of the toilet daily, and continue to hear better so long as this simple expedient is persevered in.

Case 2.—Rev. Dr. S. B. Jones, of Columbia, consulted me October 7th, 1889, for chronic disease of the throat of twenty years standing, with partial loss of voice. He was about to be retired from the ministry in consequence of inability to perform his clerical duties. The case was one of chronic pharyngitis, with hypertrophied mucus follicles, small indurated tonsils, the result of frequent cauterizations, a general thickening of the whole mucous surface of the throat, with paralysis of the left vocal cord through sympathetic nervous connection—applications of nitrate of silver solution, 40 to 80 grains, to the ounce of water, followed by the application of the solution of common salt as above mentioned, applications of a solution of iodine, iodide of potassium and glycerine, hot-water gargles as frequently as the patient would use them, and subsequently the application of the continued current of electricity by McKenzie's laryngeal electrode.

The success attending the treatment of this case, eventually, was due to the perseverance of the Rev. Doctor in

carrying it out for a series of months. The result is best expressed in his own words, in a letter of May 24th, 1893: "Your management of my case by the operation upon the tonsils, the use of electricity, hot-water gargles and other remedies, afforded me wonderful relief, and restored me to such an extent that I have been able to preach once on Sundays ever since. I am satisfied that the hot gargles played an important part in producing the much desired result."

Case 3.—The Rev. Lucias C. Authbut, of Aiken, consulted me on June 9th, 1892, suffering from chronic pharyngitis of several years standing, with partial loss of voice, the result of two severe attacks of grippe. He was not able to discharge his clerical duties, and had resigned his pastorate. In many respects the case was similar to the last, but not so obstinate or severe.

A similar plan of treatment was pursued for four months, with such relief that he was able to resume his clerical duties. Under date of April 1st, 1893, I have a letter from him commenting upon the benefit derived from hot-water gargles. In both of these cases the testimony of these gentlemen is valuable; they gave the remedy a fair trial, and would have discontinued it unless confident of the soothing and curative nature of these frequent applications of hot water. It should be observed, however, that the beneficial results of these hot applications are best seen in ladies and ministers, who persevere in the treatment in the same way that the same result is best seen in gynecological and rectal affections in infirmaries, where the patients are under control, and a systematic course is pursued daily.

A NEW OPERATION FOR ECTROPION OF THE LOWER LID.

I have for a number of years per-

formed the following simple operation for ectropion of the lower lid with uniform success, and now present to the Association the photograph of a patient upon whom it was done some years ago. The operation is performed as follows: After injecting the subconjunctival tissue with a 4 p. c. solution of the muriate of cocaine, the lower lid is steadied with Desmarre's forceps, which also controls the hæmorrhage, or two pairs of forceps (one held by an assistant); an incision is then made along the conjunctiva of the lid two lines from the ciliary border, from the puncta lachrymalis to the outer canthus. The thickened conjunctiva and subconjunctival tissue is freely dissected up and cut away from the sclerotic coat four lines from the corneal border. The greater part of the lower conjunctival *cul-de-sac* is thus removed, and the oozing of blood is pretty free. Next, the ciliary border of the conjunctiva of the lid is sewed to the remainder of the sclerotic conjunctiva near the cornea by six or eight fine silk or animal sutures. The eye is then dressed antiseptically, the wound dusted with iodoform, a small compress is applied to the lower lid to steady it and kept in position by a pledget of cotton and a bandage or a simple eye-pad. The dressings

are not disturbed for three or four days, by which time union has taken place between the borders of ocular conjunctiva and those of the ciliary border of the lid.

The sutures are then removed—if silk, they will often have to be cut out, and can be picked away with forceps—and if animal, they will be more or less absorbed and ready to come away. The compress and dressings are continued daily for eight or ten days longer.

The question universally asked on my speaking of this operation is, What becomes of the conjunctival *cul-de-sac*? is there not constant epiphora? The *cul-de-sac* is re-formed in about a fortnight, during which time some epiphora is present, but only to a slight degree, compared with the profuse lachrymation previously existing. The orbicular muscle of the lower lid, held in position by the compress and the adhesion of the cellular tissue of the lid and the sclerotic supports it, and the muscle soon regains its tonicity. The indurated margin of the lid soon subsides under the application of the yellow oxide or oleate of mercury ointment, deformity is corrected and healthy function restored to the lid and lachrymal passages.

I have performed the above operation many times with gratifying results.

SOME ACCIDENTS IN LABOR, TREATED WITH MORPHIA.

By H. S. LOTT, M.D., Winston, N. C.

A paper in a recent issue of the *American Journal of Obstetrics*, reporting a case of "Accidental Hæmorrhage During Labor," suggested to me this line of thought, and at the same time recalled to my mind several cases of alarming accidental hæmorrhage which

have occurred in the last few years of my practice, in which my treatment was certainly less heroic, possibly less scientific, but the results were most assuredly more gratifying.

Case 1.—Multipara, fourth labor, second time of my attendance—called to

patient at 6 p. m. Presentation good, progress of labor normal and satisfactory—mother delivered of 9-pound boy at 8:30 p. m. Waited 10 to 15 minutes and delivered placenta by Credé method, cleaned vagina thoroughly—uterine contractions good as in previous labor—bandaged mother and left her an hour after birth of child in good condition. Was called by hurried messenger at 11 o'clock—"Come quick, Mrs. H. bleeding to death." Patient some distance, but I was there in a very short time; found bed saturated with blood and running through on floor; patient livid; cold perspiration; no pulse at wrist; uterus relaxed, rising above umbilicus. Expressed clots, reduced womb to size of large orange, elevated foot of bed and gave hypodermic of third grain of morphia and one of ten drops of ergotole, maintained firm suprapubic pressure over womb for an hour, and remained with patient all night. No further trouble; recovery uneventful.

Case 2.—Multipara, second child, second attendance; first labor two years previous, normal in every respect; second labor normal, a little tedious, external parts firm, but finally yielding nicely; mother delivered two hours after my arrival of healthy child; no hæmorrhage; child handed to nurse, and, as usual, I waited from 10 to 15 minutes on placenta, making very gentle pressure above pubis. Placenta gradually detached and expelled without force on my part; womb contracted firmly and followed down by my left hand over pubis. But with expulsion of placenta most profuse and alarming hæmorrhage—could feel the stream of blood with my examining hand as a stream of water—*womb firmly contracted* all the time, patient gradually becoming blanched and relaxed, asks me why it's getting so dark in the room, says she cannot see me. No one in the

room but husband. I send him for whiskey and I give hypodermic of half grain morphia and one of ten drops of ergotole, which controlled hæmorrhage at once; patient much prostrated, but uterus not relaxed. No return of hæmorrhage. Recovery uneventful.

Case 3.—Multipara, first attendance. Patient four miles in country. Labor very tedious; os and external parts very slow in relaxing; pains at regular intervals, strong, but of short duration. Towards end of labor I gave a little chloroform; mother finally delivered of a fine girl; delivery of placenta easy and normal, but I noticed sign of shock just after the pain expelling the child, but as there was no blood, I attributed it to tedious labor; cleansed bed and left her feeling comfortable with exception of bearing down pain "in bottom of bowels," which I did not think at the time justified further manipulation of the parts. Was called to patient during the night; found her almost in state of collapse; blanched; pulse barely perceptible; no voice; bed saturated with blood. I at once made thorough examination and found rupture of left lateral wall of the vagina large enough to admit the introduction of my four fingers well up beside the vagina into the groin. Hæmorrhage altogether venous and partially checked by coagulum.

I at once withheld further procedure, and gave hypodermic of third grain of morphia, held pulse and waited; in 20 minutes pulse much stronger, patient much better, talked and smiled. I then cleaned away the blood, a chamber full beside that saturating the bedding, approximated the thighs closely and fastened with many-tailed bandage from below the knees upwards; gave a second hypodermic of fourth grain morphia and left patient very weak, but comfortable. No further hæmorrhage. After-

treatment consisted of thorough irrigation of rupture and genitals every fourth hour with hot water and carbolic acid; union of ruptured parts and recovery perfect.

Case 4.—Not a case of hæmorrhage, but of pulmonary emboli; primipara; æt 40; watched case closely during pregnancy; several times found albumen in urine, considerable swelling of extremities; gave hypodermics of morphia several times before confinement to secure much needed sleep; under influence of morphia when labor set in. I was summoned about 10 p. m.; presentation good; child in first position; labor normal and not more tedious than might be expected at age of patient; delivered fine healthy child at 8 a. m.; very little bleeding; strength and condition of mother very good. On evening of day of delivery slight dyspnœa, but fairly good night; on following day dyspnœa became marked and distressing, breathing loud, harsh and painful; patient had to be propped in bed, position, however, gave no relief. I gave hypodermic of $\frac{1}{4}$ grain morphia, with 1-50 of atropia, which gave some relief, and patient rested for some time, but condition of distress soon returned. I summoned in consultation my good friend, Dr. Bahnson, and we decided that we had a case of pulmonary embolism, and we agreed to make hypodermics of morphia our sheet-anchor of treatment, from which line we did not deviate save for the exhibition of 10-drop doses of tincture of digitalis at intervals of three to four hours. I watched the case almost constantly day and night, keeping the patient under the influence of morphia

the entire time for the greater part of ten days, giving from $\frac{1}{4}$ to $\frac{1}{2}$ grain at an injection, and never allowing her to become restless or impatient from the painful breathing. Morphia, in fact constituted the treatment—with it the patient was kept perfectly quiet; took and retained sufficient liquid nourishment, and as the dyspnœa, upon the gradual resorption of the clot, grew less and less, I gradually withdrew the morphia, but not entirely, for at least four weeks, and until the patient could sleep soundly at night without it. Recovery was good. I have had patient under my supervision for two years since, and her health is perfect and vigorous.

To recapitulate in brief: The hæmorrhage in Case 1 I attribute to the relaxation of an overworked uterus, the births having been in rapid succession. In Case 2, I do not know its source, unless it was caused by the rupture of an artery in or about the os or cervix. In Case 3, the source of hæmorrhage is patent to all; and in Case 4, there was no hæmorrhage, but an alarming condition, with death pending at any moment. In *all* morphia was my chief resort, and I consider it to have been, so far as human agencies go, the salvation of my patients. Used in such emergencies, I believe it to exert a direct oxytocic effect, besides, in acting through the general arterial system, it facilitates the formation of clots in the patulous mouths of bleeding vessels; and a consideration of equally as great, if not greater importance, is that it, by obtunding the sensibilities of the patient, quiets their fears, and thus the nervous phenomena and restlessness so much to be feared in such cases are reduced to a minimum.

THE MODERN TREATMENT OF TYPHOID FEVER.

By J. THOMAS WRIGHT, M.D., Salisbury, N. C.

Being an enthusiastic advocate of the modern or antiseptic plan of treatment for typhoid fever, and having followed said plan for the last two years with universal success, I am constrained to speak a few words regarding it.

Since the researches of Eberth, Koch and others have proven, beyond a doubt, that the cause of typhoid fever is due to a micro-organism, and that the bacillus is not limited merely to the lymphoid tissue of the ilium, but is found also in the mesenteric glands, the spleen, the liver, and even in the blood; and that the germ also produces in the blood several poisons, among which are typhotoxin and toxalbumen (which probably produces the pyrexia by abnormal stimulation of the heat centres in the cord, or else by paralysis of the inhibitory centres controlling them, with consequent abnormal increase of tissue oxidation), it seems to me that the only *rational* method of treatment is to combat these morbid processes by general and local antiseptics—local antiseptics to destroy the germs at the seat of the disease, thereby preventing any further multiplication of them; and general antiseptics to destroy any germs or poisons that may be contained in the blood.*

That point being conceded, the query naturally arises as to how we can best attain the desired condition.

By giving *general* or systemic antiseptics we act directly on the blood, wholly or partially destroying and annihilating any micro-organisms or poisons that may be contained therein, thereby rendering the blood pure, as well as by acting through the blood's medium on the seat of the disease in the intestine. The local antiseptics are administered

with a view to their local action directly on the lesions.

That there are local antiseptics no one denies, but that a certain medicine will act as a general antiseptic, to most minds is a matter of conjecture; but any one calling to mind the action of quinia on the organisms of malaria, as well as other diseases; the action of creasote in tuberculosis; salicylic acid and salol in rheumatism, and others, as iron in erysipelas, carbuncle, etc., cannot fail to be impressed with the truth of the statement that certain medicines act in that manner.

Osler, in his recent work on "Practice of Medicine," says: "The necrosis of the lymph follicles is due, in great part, to the *direct* action of the bacilli." That explains the efficiency of the antiseptic treatment in preventing hæmorrhage, and also perforation with the subsequent peritonitis.

In forty-eight cases in which I used the antiseptic treatment not a single death occurred, and but one case where there was hæmorrhage from the bowels. The patients also retained consciousness throughout the disease, the temperature vacillating between 100° and 104° F. The duration of the disease was very materially lessened—patients rarely remaining in bed over three weeks, and frequently not more than two.

My method of treatment is somewhat as follows: If called in during the early stages of the disease, I generally prescribe a good mercurial purge, which usually cleanses the tongue very nicely, and at once institute the antiseptic treatment.

If there is much pyrexia, I use the following:

R.—Phenacetin..... ℥ j
 Saloli..... gr. xxiv
 Creasote..... gtt. xij
 Quinia sulph.... 3 ss—j
 M. et. ft. cap. No. xxiv.
 S. Two every 4 or 5 hours.

However, if the fever is not very high, I content myself with the external application of cold, such as the wet pack, sponging with spt. myrciæ, one ounce to a pint of water, and the ice-bag. I have found phenacetin to be the most reliable antipyretic now in use, and use it almost to the exclusion of the others. I sometimes use bichloride of mercury with cinchona and the bitter tonics, and find it useful in those cases which are associated with malaria. I also use Yeo's chlorine water with moderately successful results. When there is much tympanitis, or a more marked tendency to delirium, or when the tongue is harsh and dry, I add from two to three drops of oil of turpentine per dose to the above prescription.

In conjunction with the above treat-

ment I use some acidulous drink, as nitro-muriatic acid, which allays the intense thirst, though water and ice are allowed. Alcoholic stimulants are rarely called for, milk and the concentrated foods being amply sufficient to nourish and maintain the patient's strength.

I have never used Brand's method of cold bathing, as the patients always object as long as they are rational. I find best results from a combination of quinia, salol and creasote. Salol is dissolved by the pancreatic juice in the intestine, and as it contains 40 p. c. of carbolic acid, it can very readily be seen that it acts as a direct local antiseptic, rendering the whole bowel antiseptic. Quinia and creasote are general antiseptics.

In conclusion, I would say that the antiseptic plan of treatment is deserving of attention, for, while by the old, or expectant plan, the mortality is from 15 to 20 p. c., by the antiseptic the mortality is practically reduced to insignificance.

Clinical Lecture.

SURGICAL CLINIC AT THE UNIVERSITY HOSPITAL.

By J. WILLIAM WHITE, M.D., Professor of Clinical Surgery in the University of Pennsylvania.

[Reported by HUBERT A. ROYSTER, Univ. Penna. Med., 1894.]

I. *Barker's operation for fractured patella.*—Man, æt. 35, showing result of operation for transverse fracture of patella, which he sustained a week ago in a fall from a ladder. There are several operations which have proven more or less successful in the treatment

of these fractures. Adhesive strips and compresses are generally insufficient, especially in those who are compelled to stand much on their feet afterwards; the application of Malgaigne's hooks is painful; wiring the fragments has given many cases of joint suppuration and its

consequences. If operation is declined, the best splint to use is Agnew's—a long posterior splint with adhesive strips crossing over the patella and secured by pins. The most recently successful operation is that first introduced by Mr. Barker, of London. It is performed as follows: A puncture is made at the lower margin of the patella through its ligament, of sufficient size to admit a large half-curved needle, which is armed with a strong silk ligature. This is carried into the joint, underneath the patella, and brought out through a counter puncture of the skin at the upper margin of the bone and the ligature pulled through. The needle is then taken out, re-entered at the lower opening and carried upward, *this time over* the patella, between it and the skin, to the upper puncture, where it is again threaded with the ligature and pulled downward to the primary lower puncture. Thus we have a ligature passed subcutaneously around the patella to the point of starting, ready to be tied. Before doing this, all obstructing masses between the fragments are cleared away, all fluids squeezed out of the joint (generally coming through the upper opening) and the fragments are brought in contact. The edges are then freshened by rubbing them together and held in proper position by an assistant, while the ligature is tied. Apply iodoform and an ordinary antiseptic dressing. Absolute confidence in your antiseptics is necessary. Numbers of cases have been operated on with no evil results when antiseptics was thorough. It is simple and easily done after some practice. I have done it in seven minutes. The after-treatment is carried out with the leg in a fracture box and elevation of the limb. It may be let alone until union takes place, when some passive motion will frequently be needed.

II. *Excision of breast.*—Woman, 45 years; breast shows a hard, dense tumor behind the nipple, with some skin involvement, shooting pains and *probable* slight enlargements in the axilla, though here, as in very many cases, the enlarged glands cannot be distinctly felt through the skin. Even in these cases, however, they will often be found enlarged, and must in all cases be cleaned out thoroughly. The operation here consists in making a crescent-shaped incision around outer circumference of the breast and dissecting carefully until we come to the pectoral fascia, when we know that the limits of the breast posteriorly are reached. Then follow up this to part nearest sternum, loosening and freeing it from its attachments. Scirrhus mass removed—no doubt about diagnosis. Several large bleeding vessels require attention. Dr. Agnew used to say that it was the smaller breasts that bled more. If so, this is an example. Now, turn attention to the axilla, through prolongation of the incision. Always clean it out in these cases. Teachings differ about this. No less authority than Mr. Treves claims that, if the fatty tissue at base of axilla seems healthy, no interference with this space is necessary; but I differ from him, and wish he were here to see this, for the fatty tissue presents nothing abnormal, while the glands which I take out are decidedly enlarged and diseased.

III. *Incomplete castration, tapping hydrocele and radical cure for hernia.*—Case of double scrotal swelling, occurring in man under middle life, with good family history and no previous venereal disease. Diagnosis: On *right side* a hernia extending to upper border of scrotum, with a greatly enlarged testicle, which is to be considered a tubercular orchitis. There is no history of consumption in

patient's family and the affection is unilateral, but the diagnosis of tubercular diseases is justified by the age of the patient, absence of venereal history, slow, painless development and the presence of a sinus, which is noticed on examination. The tubercle bacilli, which are probably constantly in our bodies, get into the circulation and have a tendency to lodge where the arteries divide into their smaller branches, possibly here having entered the spermatic and taken up their abode in these remote branches in the testicle itself. These bacilli may also gain entrance through contact with a woman having endometritis, etc., which disease (with its kindred affections) is now known to be sometimes tubercular in origin. Professional opinion is divided on these points.

On *left side* here there is an hydrocele, which is probably a simple one due to irritation—it may be sympathetic. *Operation:* First, tapped the hydrocele, and followed this by an injection of three fluid ounces of tincture of iodine

into the sac—radical cure for hydrocele. Leave that for the moment and turn attention to hernia on opposite side. It is partially adherent in some places, but is easily reduced and held up by an assistant, making pressure on internal ring. Then make an incision from just above internal abdominal ring downwards until bottom of scrotum is reached; a second incision, joining that at an angle. Dissect down until we come to testicle and remove entire organ—a plan which is always most successful in preventing general dissemination of tubercle. After removal of testicle finger detects hernia, with adherent omentum, which is ligated. Operation for radical cure of the hernia is now done. Making sure that the sack is clear, we introduce fingers to feel edges of ring, and needle armed with ligatures is passed from within outward, and then from without inward across ring. Be careful to arrest all hemorrhage, however slight, in all operations on scrotum. It is a frequent place for consecutive hemorrhage—there is no support to the vessels.

Society Reports.

INFLAMMATION OF THE APPENDIX VERMIFORMIS.

By T. J. McKee, M.D., Edgefield, S. C.

Read before the Edgefield Medical Society, at Edgefield, S. C., July 12th, 1893.

Those of you whose green-room experience is not forgotten, will best appreciate the situation of the fellow who is asked the question he is least prepared to answer.

Inflammation of the Appendix Vermiformis, the subject you call upon me to

discuss to-day, is comparatively new to the profession as a separate and distinct pathological entity, but it is one full of interest, and vastly important to the surgeon as well as the physician, and one, too, with which I am not practically familiar enough to enlighten you as

might be expected or hoped for. One single case, the mention of which may prove sufficient to make clear this point and free the speaker from the charge of gross or unpardonable ignorance. In a case of consultation on which there were four eminent physicians, three of whom had seen many cases of appendicitis, three quite different opinions were expressed. Mainly this discussion will be made from the opinions and practice of others, whose experience has fallen on these lines, and whose counsels are far more worthy of attention and study.

The vermiform appendix, as you all know, is a tube about the size of a goose-quill, from three to six inches in length, arising from the posterior interior aspect of the cæcum with which it communicates by a small orifice which may or may not be guarded by a fold of mucous membrane—Gulach's valve. This valve is not always discoverable from its mucosal aspect, even when the bowel has been fairly laid open. The presence of this apparently superfluous body, which is only found in man and the higher order of apes, has given rise to much speculation among anatomists and physiologists of the teleological school as to its use. It is now admitted to be a relic of a residuary stomach in lower forms of animal life, and is often absent.

In a very curious paper offered before the last meeting of the American Medical Association, in the section on Practical Medicine, entitled "Darwinism and Disease," there appears the following paragraph:

"Another of these curious remnants of a remote ancestry is the appendix vermiformis of the cæcum, a structure which had no imaginable useful vocation, but a very active one, apparently, in the opposite direction, as a "death-trap," and which is the atrophied remains of the enormously elongated cæcum of the

herbivora and quadrumana. Here, again, the same curious aggregation of lymphoid tissue at the end of the passage has taken place."

From this it would appear that appendicitis is "only an effort of nature to throw off superfluous tissue and aim at a higher grade in the ascending scale of creation, which may deprive future practitioners of one small field in which to display their skill, or the opposite.

In our attempts at refinement in diagnosis, it may be well to remember the vagaries of this highly variable body. In some cases it is disposed in a direction opposite to the normal. It may be long or short, open or closed, fixed or free, and yet in these various conditions be consistent with a healthy state of body. It may also be worthy of remark that so uncertain a quantity should within itself possess such powers for evil as author's ascribe to it.

As for my own part, I have many misgivings on this point. When we bear in mind the fact that we have appendicitis, an inflammation of the appendix, the disease under discussion, typhlitis, a disease limited to the cæcum and appendix (as some authors have it), perityphlitis, when the inflammation extends to the contiguous parts, paratyphlitis, which involves the extra-peritoneal connective tissue, and other diseased conditions arising from other and perhaps remote causes, a better idea of the difficulties which confront us may be arrived at. Apart from these complications, one of the most interesting points connected with disease of the appendix is the frequency with which it is found in a state of ulceration, stricture from cicatrization the result of some previous disease, or gangrene. Two cases now in mind are associated with tuberculosis of the lungs, which is said to be no uncommon occurrence. In a normal

state the appendix is filled with a vitreous mucus, but foreign bodies, fæces or worms may find entrance and light up this formidable disease which we are attempting to discuss. The fact of its apparent uselessness and ready liability to take on diseased action, have obtained for it the name of death-trap. Deformity, or a local paresis of the muscular tissue of the cæcum, foreign bodies, intestinal concretions and ascarides are said to be exciting causes also.

The pathology of appendicitis, according to Whittaker, is an inflammation circumscribed or diffused, attended by ulceration, going on to perforation, or a localized suppuration which may be discharged into the bowel or peritoneum. Some have reported discharges into the lung, vagina or uterus, or escaping outward through the umbilicus, lumbar region or groin.

The onset of this disease may announce itself suddenly or by slow and insidious approaches. Adults furnish the greater number of cases of the former, and children give the majority of the latter, which may present such obscure and doubtful symptoms as to render diagnosis exceedingly difficult.

Fever, disinclination to food, derangement of the bowels, diarrhœas or constipation, vomiting, with pain and tenderness about the ileocæcal region, indicate the presence of the disease.

A stooping gait or leaning forward with inclination not to walk, and increased resistance on pressure, or the presence of a distinct tumor at the point of attack, materially aid in the diagnosis. In the adult the attack is generally more sudden. Pain, more or less violent, in the right iliac region, which may also extend to more distant parts of the abdomen, giving to the patient the impression that he has colic. Chill followed by fever with sympathetic

derangement of the stomach; vomiting, though of value, may be absent. McBurney lays much stress upon the seat and character of the pain in appendicitis. He says the seat of pain determined by the pressure of one finger is exactly between an inch and a half and two inches from the anterior spinous process of the ilium on a straight line drawn from that process to the umbilicus. Dr. Pepper, on the other hand, regards this of little diagnostic value.

Rigidity of the abdomen—more on the affected side—is a sign of value, and is often present. Abdominal distention varies greatly, and is by no means a measure of the severity of the disease. A tumor of greater or less size may be detected early in the disease; but in order to do this in the presence of great pain and tenderness, it may be found necessary to administer chloroform in order to obtain more perfect relaxation. The pulse is generally rapid in proportion to the nervous disturbance and the involvement of the peritoneal structures. These symptoms will ordinarily be sufficient to establish a diagnosis. But an important point is to know the stage reached by the disease—whether perforation of the appendix, formation of pus or septic peritonitis has been established. Careful local examination, as above indicated, with due regard to the general condition of the patient in each individual case, will serve to clear up this point. The exploring needle as a means of diagnosis has been lauded by some, and as positively condemned by others. In my own mind it would be difficult to conceive of a case in which such an expedient would not be considered doubtful or hazardous, unless it be in such as had gone beyond the limits of the peritoneal cavity.

The readiness with which some surgeons go into the belly for diagnostic

purposes meets with such open or tacit approval at the hands of some of the bolder (or, rather, reckless) surgeons as, in the opinion of the more conservative, to exclude or invalidate the practice of less dangerous methods. The timely, judicious and active use of the proper medicaments will, in most cases, supersede the use of these hazardous measures as well as a resort to operative procedure. There can be no doubt, however, that in certain violent and rapidly progressive cases the knife presents the only safe and effective escape from the dangers that threaten, and which, without such interference, will surely destroy the patient. Such surgical procedure need not be detailed here. The medical treatment proper is doubtless familiar to all. The alleviation of pain demands first attention. To meet this indication opiates occupy the first place, and should be freely used, never, however, to the degree of masking the disease. Anodynes of various sorts and characters have been used with varying success. Hyoscinum, belladonna, ether, chloroform and the coal-tar derivatives may, singly or variously alternated, aid in subduing the inflammatory process induced by pain or the pressure of a foreign body, until nature has time to correct or guard against the encroachments of inflammation and its results.

Purgatives, though advised by some, are of doubtful value. When constipation is present, the temptation to resort to purgation is so strong, and the indication seems so plain, that the withholding a dose of such medicine looks like a crime. But a tentative dose of some mild laxative is the safer plan. Better use lavements of large quantities of warm water or salt and water, medicated or not, as indications may require. Rest and quiet in bed are also important

aids in the treatment. Local applications act derivatively, and rarely fail to give comfort to the patient. Pain is a leading feature in many cases, often spasmodic, and possibly accompanied by a local paresis of the bowel, which cannot be overcome by purgatives, but rather favored.

It should be borne in mind, always, that a number of these cases of appendicitis run a rapidly fatal course unless early operative procedure be instituted. A day or a few hours may decide the fate of the patient. In such case there is no time afforded for expectancy.

Dr. McBurney says on this point: "If nausea disappeared within twelve hours; if at the end of the same period tenderness on pressure had not increased; if the temperature had remained normal, or had not risen above 100° F.; if the pulse was not accelerated, or but slightly so, and if the patient moved in bed with ease, the case was probably a mild one, destined to recovery. If, at the end of twelve hours more, this state of things still obtained, the chance of favorable ending was enhanced. If, during the two succeeding days, no tumor had formed and the symptoms had all improved, or some had improved, while others remained stationary, the case might be considered as practically safe, although complete rest should be enjoined. Again, in other cases, the temperature would be higher, the pulse full and the nausea considerable; still these symptoms might not increase in severity, and the indications for conservative treatment would be clear. In these latter cases a short interval of twelve hours or more would usually develop signs of improvement, or of the cessation of advance, or of the advance of the symptoms. If signs of improvement had appeared, medical treatment would be continued. If the symptoms had

merely ceased to advance, the decision would be postponed till another visit, to be made after a short interval, the medical treatment being in the meantime continued. If the symptoms have become more marked, then the question of immediate operation arose. In all those cases which showed well-marked signs of increasing disease, the question of an operation should be deliberately and carefully discussed, and, in the opinion of the speaker, the operation should be done. It was not best to wait for strong evidence of perforation or peritonitis. It was not satisfactory to wait till the pulse became rapid and weak and the respiration anxious. No one could name the signs of impending perforation. When spreading peritonitis was discoverable, the peritonitis had already spread. If the peritonitis had passed beyond the wall of the abscess, then the abscess had already ruptured. If marked distention of the abdomen was waited for, section might demonstrate septic paresis of the gut, a condition from which the speaker had never known a patient to recover. It might be laid down as a rule, with few exceptions, that the indications of advancing disease could be clearly made out by the end of thirty-six hours, provided that the diagnosis had been made early, and followed up by several careful examinations. Advancing disease, with significant symptoms, at this period offered the necessary indications for operation.

On the other side, Dr. Pepper, who is equally high in authority, says: "Assuming that the subject under discussion included all the inflammatory affections of the appendix, cæcum and circum-cæcum tissues, much had been said to which he should take strong exceptions from the standpoint of a pure medical practitioner. He believed that if every patient with appendicitis were operated

upon the mortality would be ten-fold what it now was." This, no doubt, is an extreme view, and one which cannot be sustained by the records. "For more than a quarter of a century he had been in the habit of seeing many cases of appendicitis every year. He had based this statement upon the classical researches of Dr. Fitz, who had demonstrated more clearly than any other that in a large proportion of cases of right iliac trouble, the appendix shared in the trouble, if, indeed, it was not the starting point of the trouble. Now, as a general rule, these patients recovered under medical treatment, and remained permanently well afterward, no surgeon being associated in the treatment of the case. In no year during the past two decades had he failed to see a considerable number of cases of this kind, and the cases that had demanded operation, as contrasted with those which had ended in perfect recovery without operation, were probably at least as one to a score. He thought that the assertion that, as soon as appendicitis was suspected, the surgeon should be called in, was quite out of accord with the experience of physicians the world over."

Here we have what may be called the extreme surgical and the extreme medical views of the management of appendicitis. My own limited experience inclines strongly in favor of the latter. But every practitioner must determine the merits of each individual case according to the symptoms and circumstances which environ it. To meet this and many other trying situations in which the country practitioner is often placed, demands a clearness of insight, a soundness of judgment and a decision of character and purpose rarely found, or perhaps required, in the city brother, who writes so beautifully and operates so brilliantly.

Unfortunately for the sick and suffering, and equally so for the country practitioner, his very first visit is often too late to save his patient. The time consumed in the use of domestic remedies which are often legion, his scattered clientele, the difficulties often attending the hunting up, so to speak, of the busy and ever moving country doctor, often prevent his timely aid. Beyond the power of human achievement much is expected of this oft-abused and most useful and necessary functionary. He must be surgeon, physician, accoucheur, consultant, nurse and peregrinator of the earth, and at the same time be on hand when needed to serve in any capacity, excepting that of wet-nurse. He must be ever alert, observant and painstaking, ready and quick to determine

questions upon the decision of which hangs human life, none of which questions afford more apt illustration than the disease now under consideration.

Within the range of practical medicine there is scarcely found a subject more worthy of careful study, and this Society is to be congratulated upon its timely selections for discussions.

In conclusion, I beg to express my very high appreciation of the honor conferred in selecting me to lead in the discussion; and, while craving your indulgence for its many short-comings and general lack of completeness, a more than usually full occupation of my time, and the mere snatches in which it has been so imperfectly prepared, will, I trust, be some apology for its many defects.

THE CLIMATE OF WESTERN NORTH CAROLINA, WITH A CONSIDERATION OF THE RELATIVE VALUE OF HIGH AND MEDIUM ALTITUDES IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

BY KARL VON RUCK, M.D., Asheville, N. C.

Read in the Section of Climatology and Demography, Pan American Congress.

[ABSTRACT.]

The Asheville Plateau is best known of the mountain region of Western North Carolina as being most accessible and offering better accommodations than the remainder of this territory.

It has a medium elevation of about 2,500 feet, but within a few hours' travel from Asheville elevations of from 1,200 to nearly 7,000 feet can be reached and made available for climatic treatment of disease, if it appear desirable.

Some writers, and especially such as practice at much higher elevations, have

endeavored to convey the impression that only these higher levels are really curative in phthisis, and that medium level resorts like Asheville have no such influence, and at best are nothing more than a makeshift whereby the patient's chances for recovery are liable to be trifled away.

The author contends that if the elevation is beneficial at all, it must be relatively so, and that it has its limits, and calls attention to the disturbances both of the heart and respiratory func-

tions induced by elevations, especially when the ascent is quickly made, as by rail-way journey.

In health, compensation in respiration and circulation occurs, and also in certain cases of early phthisis, but the patient who has his respiratory capacity diminished by tubercular deposits, adhesions or destructive changes, and whose heart, perhaps already enfeebled, has to do extra labor on account of the mechanical obstruction in the lung to the flow of blood from the right ventricle to the left auricle, cannot so readily compensate the effects of a considerable change in atmospheric pressure, and if such a patient attempt any exercise whatever, he is liable to heart-strain, a result which causes ship-wreck in many cases of phthisis, no matter how induced, by secondarily bringing about local congestions, hæmorrhage, renewed inflammatory changes, etc.

Clinically it has not been shown that high level resorts show better results than medium levels, on the contrary, owing to the indiscriminate use of very high elevations for patients at all beyond the very early stages, the results are not as good. At the medium elevation of the Asheville plateau the author for several years past has accomplished 100 per cent. of recoveries in all his early-stage cases, who remained long enough to justify the expectation, and none have failed to improve, even from a short season of residence, while on inquiry, two years after discharge of 518 patients, the disease is shown to remain cured, or permanently arrested in 35 per cent. Fifty-six per cent. remain still improved, and 9 per cent. have grown worse or have died.

These 518 cases include all stages,

and were only in so far selected as to exclude absolutely hopelessly advanced patients which are not admitted into the institution where this work was done. With these results, the whole plea for more than medium elevation must fall to the ground, no better results having been obtained anywhere else.

Other disadvantages of high level resorts are extremes of temperature and periods of excessive dryness of the air with the presence of much dust; this is especially true of Colorado and New Mexico.

The Asheville plateau is free from all extremes—it has cool summers, with the greatest degree of temperature at 88° F., and with mild winter, the thermometer rarely falling below 20° F. The air is relatively dry, with an average of about 65 per cent. of relative humidity.

The number of clear and fair days averages twenty-five out of every month since the United States Weather Bureau has been in operation.

The amount of ozone averages 56 per cent. of the possible amount, and in all other respects, the plateau presents favorable conditions in its climatic and meteorological conditions.

A table giving full details as to the observations from the United States Weather Bureau is attached.

In conclusion, the author recognizes that excellent results are frequently obtained at high altitudes, especially in the very early-stage cases, but contends that equally good results are accomplished at medium elevations without incurring the dangers mentioned, and that many of the more advanced cases, who do not improve at high elevations, or who grow worse there, obtain benefit at lower levels.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Sixth Annual Meeting, held in New Orleans, La., November 14, 15 and 16,, 1893.

DR. BEDFORD BROWN, President, in the Chair.

THE CONSERVATIVE TREATMENT OF PYOSALPINX.

Dr. C. Kollock, of Cheraw, S. C., read a paper on this subject. He said, in cases of pyosalpinx, much caution and a very careful and rigid examination are called for to determine the cause of the presence of pus, the length of time it has been there, and the condition of the walls of the tube in which it is found. Attention should also be given to the peritoneum and ovaries, but above all, there should be the strictest inspection of the endometrium, a disordered condition of which contributes much to the production and continuance of pus in the tubes.

Within a year or two changes have been made in the treatment of pyosalpinx, and conservatism now enters largely into its management. Men of high position in the profession are more decidedly agreed that a moral obligation rests upon us to relieve patients without the sacrifice of any organ, or part of one, when this is compatible with safety. Recently Polk, Pryor, Krug, Boldt and Dudley had reported to the New York Obstetrical Society a number of cases of pyosalpinx treated by the conservative method now in vogue. This treatment, when faithfully carried out by curettement and aseptic divulsion, has not only been successful in saving the tube and ovary on the non-affected side, but in several instances the diseased tube was entirely relieved of the presence of pus. That many cases of pyosalpinx have been accurately diagnosed and radically cured without the mutilation of any part of the sexual organs, is well

authenticated. Dr. Kollock's experience, while limited compared to that of others, has been sufficient to convince him that the conservative system of practice is bringing us to that period when the mutilation of women, once supposed to be necessary, should cease.

Dr. Kollock then reported a few cases of pyosalpinx which had fallen into his hands, the happy termination of which had placed him under obligations to the pioneers in the conservative treatment. All but one of four cases were relieved entirely without resorting to coeliotomy.

THE INCISION IN ABDOMINAL SECTION—
HOW TO CLOSE IT—POST-OPERATIVE
COMPLICATIONS ABOUT IT.

Dr. Joseph Price, of Philadelphia, read a paper on this subject. He said the question that most vitally concerns surgical and gynecological work was, How can the mortality be reduced? Surgical judgment and surgical fingers repeatedly determine the issue of life or death.

We have nothing from which we can ever approximately determine to what extent the length of the incision influences the mortality. The statistics of comparative results would not prove satisfactory, for the reason of the entry of so many other compromising elements—adhesions, their character, extent and locality. That the incision exercises a greater influence than is generally recognized or admitted, he entertained little doubt. As to length, no rule of mathematical certainty could be laid down. In his own experience he finds the balance of both convenience and safety to lie with the short incision.

The short incision narrows the limits of hemorrhage. It is safe to begin with a small incision, and where the size and character of the tumor or complications present require a larger one, it can easily be made. Very much abdominal work can be done through an opening admitting only two fingers. The reliance of the abdominal surgeon must be largely in educated fingers. In the majority of cases an operation can be done through a small incision without the operator or spectators seeing viscera. Universally adherent, irreducible, or solid tumors require a long incision for delivery, and for dealing with complications that can only be dealt with through a long incision, those beneath and on the sides of tumors. In the majority of cases, by so enlarging the opening as to obtain a view of the parts, we augment the risk of ventral hernia and provoke tedious convalescence.

The importance of a perfect closure of the incision has only recently received that attention it deserves. The effort should be to approximate, as nearly as possible, normal conditions, anticipating and dealing with all existing or possible complications with scrupulous minuteness and care; thus guarding against those accidents which are too frequent. He would not pretend to suggest uniform procedures to be carried out in all cases, as each operator has his own way and does his own work best that way, and it would not be possible for him to apply the methods of others safely and successfully without special training. He is satisfied that the exposure and manipulation of the incision, as well as the peritoneum, is harmful. Incisions bathed in pus and filth, and freely manipulated, often refuse to unite. Suppurating wounds are largely due to careless closure or to tight sutures, including too much tissue.

Tight suturing is too common, and has destroyed life in many feeble subjects. Suppuration due to tight suturing and stitch-hole abscesses, in all sections, where they do not result fatally, prolong convalescence. Cases were cited in point.

Through and through suturing, including all structures, more of the central structure than skin or peritoneum, with either silkworm gut or pure silk, give and continue to give, the most satisfactory results. Silkworm gut seems to be the favorite material at present, as it possesses all the natural and essential qualities of a suture, is small, strong and non-irritating—the three cardinal virtues of all good suturing material. Terracing sutures has nothing to recommend it; on the other hand, Dr. Price believes it prolongs an operation. Retraction of skin and peritoneum by the introduction of silkworm sutures, gives inclusion to more central structures and the least possible tension on skin and peritoneum. Keith, Tait and Bantock all use a fine straight needle, and their work has been about perfect. The use of large, curved, cutting needles is harmful, their use primarily favors hemorrhage, and secondarily stitch-hole abscesses.

IS OPERATION DEMANDED IN ALL CASES OF APPENDICITIS?—THE BEST TIME TO OPERATE.

Read by Dr. A. M. Cartledge, of Louisville, Ky. Inflammatory conditions of the appendix are essentially intra-peritoneal lesions. Modern surgeons have an abiding faith in the surgical maxim that whenever pus is believed to be present in tissues or organs of the body, it should be removed; hence the new pathology of a very old and frequently fatal malady inspired surgeons to attempt

some radical means of relief. Perfection in technique can only come from individual experience and a knowledge of the work of others.

The pathology of a disease is the only true key-note to its rational treatment. Probably the best classification of appendicitis is: catarrhal (simple); ulcerative (from tuberculosis from foreign bodies); perforating (from ulcerative perforation from strangulation, the result of twisting). This classification deals strictly with the changes occurring in the appendix, and should be considered apart from the peritoneal and other conditions which may ensue and cause well-marked variations in the clinical course of the disease. If the walls of the appendix give way in a mass of fibrous adhesions, the result of long-continued irritation, the pus which forms is rather securely encapsulated, and may be days, weeks, even years, finding an outlet. In fact, as is often the case, if the bacillus coli communis predominates, and a few staphylococci are present, it may remain encapsulated unless it receives a new impetus of irritation. Cases were reported illustrating this point. Cases were also reported illustrating the part played by injury as an exciting cause in appendicitis, and the belief was expressed that a chronic form of unrecognized appendicitis existed prior to such injury.

We know more about the pathology of ulcerative or suppurative appendicitis than we do of the catarrhal form, because the cases not operated upon which recover are mostly called catarrhal. These are cases which progress with little pain, with very little fever, 101° F. as a maximum, and have a tumor which subsides. These cases are the pride of the poultice and the opium practitioner. Ulcerative appendicitis must be either tuberculous or traumatic, the trauma consisting of

foreign bodies and enteroliths, usually the latter. The tuberculous would only give rise to acute symptoms as the result of cicatrization and stenosis, with distal distention, or secondary inflammation with pus organisms. Either of these results favor perforation. This is essentially the chronic variety, but will eventually lead to perforation, probably in the ways indicated.

When physicians come to view inflammations of the vermiform appendix in their proper light, the author said, the prognosis will assume a very different shade. We should consider any appendix once so affected as to deserve the name of appendicitis, whether from tubercle or trauma, a lastingly diseased structure, and the fancied cures are quiescent states the result of very easily recognized conditions. If we could trace our so-called first-attack cases of appendicitis through subsequent ones, we would say the prognosis, not only as to health and comfort, but as to life, is bad, very bad. A man has the trouble three, four or five times, apparently recovers—all counted as cures probably by different physicians. Finally he dies in an attack; the death is counted but once, and sometimes not then; for if, as is often the case, death results from the rupture of an unrecognized appendicial abscess, or from diffuse peritonitis after perforation, the chances are that the cause is never suspected, and death is recorded as occurring from peritonitis. Every case of appendicitis, not barred by surgical limitation, should be operated upon. The best time, provided the symptoms are not too urgent, is after the bowels have been thoroughly moved.

Dr. Joseph Price agreed with the author of the paper that there was but one treatment for appendicitis, namely, removal of the appendix. He considers

it a murderous disease, to be classed with extra uterine pregnancy. Both demanded prompt surgical treatment when first discovered. He recommends in acute cases of appendicitis without pus, removal of the appendix and freeing of the inflammatory adhesions.

Dr. G. W. Long, of Richmond, opposed operation in every case of appendicitis. Autopsies have shown that one-third of the human race had at some period of their lives had this disease. That being true, and considering the small per cent. of deaths, it naturally follows that appendicitis does not always kill, even if it is not operated on. In the catarrhal form, he thinks there is no reason for operating. In the perforative form we should operate. In the perforative form without adhesions, we should also operate as soon as we make a diagnosis.

Dr. William T. Briggs, of Nashville, had been operating on every case of appendicitis that came into his hands where the diagnosis was clearly established, and he has had no occasion to regret it. He has operated in cases where there were perforative symptoms, and in others where there were none; in some where there was, and in others where there was not, suppuration, and still in others where there was, and where there was not, sloughing.

Dr. C. Kollock, of Cheraw, S. C., had seen a great many cases of appendicitis. He recommends saline treatment in the first attack, but if there is a recurrence he invariably operates, and has never lost a case.

Dr. W. E. B. Davis, of Birmingham, Ala., had never operated on one of these cases without advising a secondary operation for removal of the appendix, telling the patient that the disease would recur. He thought, however, there were many cases that got well without operation, but it was a very difficult matter

to tell in what cases we should not operate.

Dr. Hunter McGuire, of Richmond, said he had many a time operated too late, but never in his life had he operated too soon. If, after free and full purgation with salts, administered by the mouth and rectum, the symptoms are not relieved, he thinks the time for operation has come, and does not hesitate to operate. He had never known the mere operation in the hands of skillful surgeons to kill or add to the danger of the patient's life. Appendicitis kills, and it is put down to inflammation of the bowels, peritonitis, or something else.

Dr. Louis McLane Tiffany, of Baltimore, said that the cases that require consultation should be divided into those that are going to live without bursting, and those that will rupture inside of three days, and then, next to the question of making the diagnosis, was to get the consent of the family physician. The cases that are dangerous die within seventy-two hours, before the family physician is able to make a diagnosis.

Dr. Willis F. Westmoreland, of Atlanta, favored early operative interference. He had never been called in sufficiently early by the general practitioner to operate, consequently the patients died promptly. It was necessary to educate the general practitioner to send cases to the surgeon for operation earlier.

Dr. W. B. Rogers, of Memphis, had seen cases of catarrhal, ulcerative and gangrenous appendicitis, but had never been able to make a diagnosis until he got inside. The symptoms of the disease were the same as those of peritonitis, localized at the site of the appendix. In the cases he had operated on, he was satisfied that no medicine would have effected a cure.

Selected Papers.

THE EFFECT OF CASTRATION ON WOMAN, AND OTHER PROBLEMS IN GYNECOLOGY.

BY WILLIAM GOODELL, M.D., Honorary Professor of Gynecology in the University
of Pennsylvania.

There are problems in gynecology not yet fully solved, on which I purpose in this paper to give my own individual opinion—an opinion that I do not claim to be infallible, but which is based upon a large experience.

One question not yet satisfactorily answered is this: What effect upon a woman has the removal of her ovaries? Unquestionably there usually follow the annoyances of the change of life. These, in my experience, are long spun out, because, when menstruation has been abruptly and artificially stopped, the change of life, especially in young women, takes more time to become fully established than when the menopause has been naturally induced. Consequently years may elapse before the victim of the operation escapes from the perspirations, the flashes of heat, the skin-tinglings, the numbness of the extremities, the nerve-storms, and all other vaso-motor disturbances, the name of which is legion. My experience, therefore, coincides with that of Hegar, who says that "the artificial menopause induced by the operation is often attended with more serious complications than those which are not rarely observed in the natural change of life."

Then again, the unwelcome fact cannot be shirked that mental disturbances may be traced directly to the removal of the ovaries as a cause. These are manifested by brooding, by low spirits, by melancholy, and even by insanity.

Every ovariectomist has met with such painful episodes in his practice. Glavaeche, who has made a study of this subject, goes so far as to declare that "in almost all cases the mind becomes more or less affected, and not infrequently melancholia results." Keith has stated that 10 p. c. of his patients who recover from hysterectomy subsequently suffer from melancholy or from other forms of mental disease. Yet this result must come, not so much from the extirpation of the womb, which is merely a muscular bag, as from the associated ablation of the ovaries, of which the womb, physiologically, is only the appendage.

Whether this deplorable event is due directly to the nerve-shock of the operation itself, together with its emotional environment; whether to the abrupt arrest of an habitual flow; or whether to the absolute need of the ovaries for mental equilibration—is yet an open question. We know, however, that sexuality is a potent factor in woman as well as in man, and that even certain sexual functions—such as coition, menstruation, gestation, parturition and lactation—of themselves tend not infrequently to disturb the mental poise. I am disposed, however, in a measure, to attribute the attacks of insanity in those women who have lost their ovaries to their brooding over the thought that they are unsexed; and if brooding may be deemed in itself a mental aberration,

Glavaecke's sweeping statement is not an extravagant one.

But, after all, the burning question is: Does the removal of the uterine appendages affect the sexual sense of the woman, or in any way unsex her? Here we have an embarrassing diversity of opinion. Some operators contend that in these respects castration does not affect her at all; others that it does so, and often very decidedly. The truth in such cases usually lies in the mean, as I shall try to show.

In my *Lessons in Gynecology* and in my early teachings, I maintained that the removal after puberty of the ovaries and the tubes does not unsex the woman, at least not to a greater extent than castration after puberty unsexes the man. In the one the ability to inseminate is lost; in the other the capability of being inseminated; but in both the sexual feelings remain pretty much the same. Males who have lost their testes after the age of puberty are said to retain the power of erection, and even of ejaculation, the fluid being of course merely a lubricating one. The amorous proclivities of the ox or of the steer are the scandal of our highways. Alive to these facts, Oriental jealousy demands in a eunuch the complete ablation of the genital organs. Not only are the testes, therefore, removed, but also the scrotum and the penis flush with the pubes. Hence, to avoid the soiling of his clothes, every eunuch carries in his pocket a short silver tube, which he inserts merely in the pubic meatus whenever he passes his water. I contended, further, that, apart from cessation of menstruation and from inevitable sterility, the woman after castration remains unchanged, having the same natural instincts and affections; that the sexual organs continue excitable, and that she is just as womanly and as

womanish as ever. I held that the seat of sexuality in woman had long been sought for, but in vain. The clitoris had been amputated, the nymphæ had been exercised, and the ovaries and tubes extirpated; yet the sexual desire had survived these mutilations. The seat had not been found, because sexuality is not a member or an organ, but a sense—a sense dependent on the sexual apparatus, not for its being, but merely for its fruition. My inference was that the physical and psychic influence of the ovaries upon woman had been greatly overrated. In the popular mind a woman without ovaries is not a woman. Even Virchow contends that “on these two organs (the ovaries) depend all the specific properties of her body and her mind, all her nutrition and her nervous sensibility, the delicacy and roundness of her figure, and, in fact, all other womanly characteristics.” This statement I held to be true only in so far as the ovaries are needful for the primary or rudimental development of woman, but not true when once she is developed; for then they are not essential to her perpetuation as woman.

In time, however, I slowly found out that the removal of the ovaries does blunt, and often does extinguish, ultimately, the sexual feeling in woman; although the removal of the testes after puberty is said not to impair the virile sense of the male. This random opinion, however, I very much doubt, despite the maudlin sentiment expressed even about eunuchs by De Amicis and by other travellers in the Orient. For the secretion of the seminal fluid is in itself the great aphrodisiac, and how otherwise can we explain the changed behavior of Abelard toward Heloise after his forcible castration? Giving up this analogy, therefore, in my more recent teachings, I adopted that of the menopause, as

suggested by Kœberlé. I accepted his analogy, although I could not wholly accept his inference that woman is not affected sexually by the natural cessation of her menses. Kœberlé sums up his opinion in the following words: "In my own experience the extirpation of both ovaries causes no marked change in the general condition of those who have been operated on. They are women who may be considered as having abruptly reached the climacteric. Their instincts and affections remain the same, their sexual organs continue excitable, and their breasts do not wither up."

A riper experience, of which time was the main element, has led me still further to modify my views on this subject. Unquestionably the natural change of life, when fully established, but not until it is fully established, does very sensibly dull and deaden the sexual sense of woman, which ultimately disappears in her long before virility is effaced in man. Nor is the survival of this sense after the menopause so essential to woman, because, after the cessation of menstruation, she loses the power of procreation, which is retained to an advanced age by man. This is a wise provision of Nature, for, did the sexual sense of the wife outlast that of her husband, it could not be gratified. Sensible of these changes, a gifted French authoress makes one of her heroines say, with italicized emphasis: "*Men* may forget the course of years; they may love and become parents at a more advanced period than we can, for Nature prescribes a term after which there seems to be something monstrous and impious in the idea of (our) seeking to awaken love. . . . Yes, age closes our mission *as women* and deprives us of our sex." Now, what happens in the natural menopause holds good in that artificially and abruptly produced, with this important

difference, that in the latter the sexual feeling is sooner lost. I am willing to concede that in some women, by no means in all, whose health had been so crippled by diseased appendages as to extinguish all sexual feelings, there is, after castration, a partial recovery of the lost sense whenever health has been regained. Yet even in these cases, as far as I can ascertain—for women are loth to talk about these matters—the flame merely flares up, flickers and soon goes out.

My own experience would lead me to the conclusion that in the majority of women who have been castrated the sexual impulse soon abates in intensity, much sooner than after a natural menopause, and that in many cases it wholly disappears. This tallies with Glavaeck's conclusion that "in most of the cases the sexual desire is notably diminished, and in many cases is extinguished." In corroboration of this statement let me cite, out of my many cases in point, a few of the more salient ones. The wife, aged 34, of a farmer, so exhausted him by her sexual exactions, that his health suffered very seriously. The appendages were diseased and fixed by adhesions. After their removal menstruation and the sexual impulse continued unabated for a little over a year, when the former wholly ceased, and the latter not long after disappeared. Another case was the very ardent wife, aged 30, of a man who was not so well-mated to her. She was sterile and had excessive menorrhagia from a uterine fibroid, for which her ovaries were removed. Menstruation did not reappear, and in less than two years all sexual feeling was lost. In a third case, a young lady of high intelligence was reduced to a pitiable condition of ill health by menorrhagia and by frequent acts of self-abuse. She was

not insane, yet, incredible as it may seem, she sometimes masturbated no fewer than eight times in the four and twenty hours. For several months after the removal of the ovaries, which were apparently healthy in every respect, she kept up her bad habits, although the monthly flow never returned. Then the sexual feeling gradually vanished, and she gave up her solitary vice. In a fourth case I removed the healthy ovaries of an unmarried lady of middle age, who was queer, but not insane enough to be confined. Toward her monthly periods she was goaded by so irresistible a desire for sexual intercourse that she herself feared going astray. Not long after her castration, which was done more to save her from reproach than to cure her insanity, she lost the desire wholly and absolutely. She did not, however, regain her reason, and ultimately had to be placed in an insane asylum.

Imlach's case is a celebrated one in medico-legal jurisprudence. This skillful surgeon, after removing the appendages of a woman, was prosecuted by her for unsexing her, and by her husband for spoiling thereby his marital pleasures. The special committee appointed to investigate Imlach's numerous cases of castration at the Woman's Hospital, in Liverpool, reported that they found "a distinct loss of sexual feeling to such an extent as to cause serious domestic unhappiness in not a few instances." The correctness of this report is corroborated from cases in my own practice, of engagements broken off, of conjugal estrangements, and of marital infidelity.

Let me here remark that I was once consulted by the late Dr. Kerlin about the propriety of removing the ovaries from a feeble-minded inmate of his institution, whose shameless intercourse with the other sex was the only bar to

her being at large. Being very sanguine that the operation would succeed in its object, I urged its performance. He, however, could not get the official sanction which we both wished for our own legal protection, and nothing further was done than to keep the girl under lock and key.

In other sexual characteristics I have not found in these women any marked changes, either physical or psychic. Their affections seem to remain the same; their breasts do not flatten or wither up; they do not become obese; abnormal growths of hair do not appear on the face or on the body, and the tone of their voice and its quality are not changed. In one word, there has not been in a single one of my cases a tendency toward any characteristic of the male type. If any change has taken place, it has been in the direction of old-maidhood.

To cure the ill-health of a woman whose appendages are diseased, or to relieve her from her sufferings, a surgical operation is by no means always necessary. Many women with adherent tubes and ovaries, and, for the matter of that, some, even with pus in these organs, suffer either no inconvenience whatever, or very little, indeed, from that condition *per se*. There are, again, others who have pains or aches only at their monthly periods. But let their health break down, say from influenza, from malaria, from over-work, or from nerve-strain, then symptoms may arise from hitherto latent pelvic lesions. Yet, in most of these cases, if the woman can be restored to her former condition of health—that is to say, to that which she enjoyed just before the final breakdown—she will lose her local symptoms and become symptomatically well. On this matter I can speak positively, for many a patient has been sent to my

private hospital in order to have her distinctly diseased tubes and ovaries removed, who has been restored to health without the use of the knife. Now, by the term "*restored to health*," I do not mean that the treatment has released the adherent appendages, but that it has freed the woman from every pain and restored her fully to all her social and domestic duties and pleasures. She has been cured so well as to be able to row, to swim, to dance, to take long walks, to ride on horseback and to exercise in the gymnasium—and what better vouchers of good health than these can be given?

I will go yet further, and assert that even cases with all the subjective and all the objective symptoms of ovarian or of tubal abscess, have been cured by me without any operation whatever—the pus having disappeared, either through absorption or through inspissation. What is still more strange, in a few cases of abscess of each uterine appendage—very few, I will acknowledge—the treatment by massage, electricity, local applications, and by a general building up of the system was followed by conception, pregnancy and parturition. These were cases in which I did not advocate castration until other means had been tried first, but all had been sent to me by their physicians for the purpose of having their ovaries removed.

I come now to two cases on which I urged castration. Perhaps I have had more, but I cannot recall them. Each one had the fixed, sausage-like, tubal tumor on either side. Yet each patient, to my very great surprise, conceived and bore children. The one, a patient of my friend Dr. D. Murray Cheston, first consulted me and afterward a gynecologist of world-wide renown, who corroborated my diagnosis of double pus-

tubes, and doomed her, as I had, to hopeless sterility. The puerperal convalescence was stormy, and at one time threatening; but she ultimately got well. The other case is a standing joke of my friend Professor Parvin, who knew the circumstances. The woman presented similar characteristics to those of the preceding case, and I urged an operation. This she luckily refused to undergo, and a year or more afterward gave birth to twins. Of course, the rejoinder will be made, that my diagnosis, although shared by other specialists besides myself, was a faulty one. But I can as unhesitatingly reply that had the objector made the examination, he inevitably would have followed it by an abdominal section, and as inevitably would have removed both appendages, as I certainly should have done had I opened the abdomen.

Now, in these cases, the pus was either confined to the ovaries, or, as I supposed from the sausage-like form of the tumors, it lay sealed up in the tubes, and the closed-up lumen of one of them was, by returning health, restored to full patency. The possibility of a closed-up tube regaining its bore is, I know, strongly disputed, even ridiculed, and *a priori* reasoning would certainly justify the doubt. If, however, solid uterine fibroids of stony hardness and of several pounds weight will, through absorption, wholly disappear, as every gynecologist has seen them disappear, why may not the tubal barriers and septa also break down and become absorbed? I have read somewhere, but the reference I cannot now find, that, in order to prevent conception in a case of narrow pelvis, both tubes were ligated, without establishing sterility. On the other hand, great disorganization of the ovaries is not incompatible with pregnancy, for it appears that a very small amount

of ovarian stroma goes a great way. Menstruation often continues, however diseased the ovaries may be, and Atlee reports two cases in which one ovary having been removed, the other became so cystic as to need *repeatedappings*. Yet each woman not only menstruated, but conceived and gave birth to a child. In one of these cases a cyst of the sole ovary, the other having been removed many years previously, was tapped twice before conception, twice before delivery, seven times afterwards, and then was extirpated. Robertson mentions a remarkable case in point, which occurred in his practice. He removed both the ovaries, which were diseased, of one of his patients, yet she afterward conceived and gave birth to a child. His explanation is that he must have left, unwittingly, a scrap of healthy ovarian tissue in one of the stumps. But on the other hand, the ovum could not have descended into the womb unless the lumen of one tube had reopened at the point where it had been sealed up by the adhesive inflammation set up by the ligature.

With regard to the third problem: Supposing simply therapeutic measures fail, and the physician is driven to surgical interference, must he, after breaking up the adhesions, always extirpate the now free uterine appendages? Most surgeons contend not only that the diseased appendage should be removed, but also that both appendages should be extirpated, even if one alone is diseased. This advice is given on the ground that the healthy one is liable in its turn to become affected. My own course, under such circumstances, would be never to remove the healthy appendage unless the menopause had been established already, or unless there obtained a good reason for hastening it on. On the other hand, should both ovaries be in-

trinsically diseased and their tubes contain pus, I would always remove both uterine appendages in their totality, no matter what the age of the patient might be. Generally, however, the pus is limited to the tubes, and in that case sometimes one ovary, barring its adhesions, which, of course, must be broken, is healthy enough to be left behind. In such a case the tube alone, if possible, should be removed, and not the healthy ovary or the healthy ovaries—if both happen to be sound. Further, rather than wholly remove all ovarian stroma, I should try in such cases to leave behind even a small fragment; for, in several of my cases in which a piece of an ovary, not larger than a bean, was left behind, not any menstrual or sexual changes whatever took place in the woman. Should the uterine appendages be merely adherent, and not intrinsically diseased to any extent, I would, as a rule, during active menstrual life, release them, and perhaps extirpate the worse of the two, but not both of them.

My reasons for this conservative treatment are, that the complete extirpation of these organs, as I have shown before, tends to destroy the sexual feeling, to disturb the mental equilibrium, and to produce prolonged nervous perturbations, all of which come from the abrupt and untimely suspension of menstruation. There is yet another very excellent reason for this advice: The majority of such physicians, and all laymen, look upon women deprived of their ovaries as unsexed. Just as castration is in the male, so the analogous operation is in the female deemed a sexual mutilation to which common consent attaches a stigma. No woman would marry a eunuch, and few would wed a woman deprived of her ovaries. In my own practice I have known of several very sad cases of marriage engagements

broken off, of marital infidelities, and of bitter estrangement between husband and wife, all of which would have been avoided had one ovary been spared, or, indeed, had a mere fragment of one been left behind.

Upon the question of the removal of the uterine appendages for the cure of insanity and of epilepsy, I have very few words to say, but they are all based upon cases occurring in my own practice. If the insanity is limited to periodic outbreaks, strictly ovarian in their character and with the menstrual flux as a storm-center; if the epileptic fits are preceded by an ovarian aura—that is to

say, if they pivot around the monthly period and appear at no other time—the removal of the appendages, by suppressing a pernicious menstruation, usually will bring about a cure in either disease. But when these organs are extirpated merely as a panacea *per se* for these mental and neural disorders, irrespective of an ovarian origin, the operation affords no relief. At the same time I am free to confess that, in order to stamp out insanity, I am strongly inclined to advocate the legal castration of every man and of every woman who is the unfortunate victim of this hereditary curse.—*Medical News*.

Reviews and Book Notices.

Reference Hand-Book of the Medical Sciences. By various writers. Illustrated by Chromolithographs and Fine Wood Engravings. Edited by ALBERT H. BUCK, M.D. Volume IX., 1076 pages. William Wood Co., New York, 1893.

The rapid strides made in all branches of medical science, which have made the past few years characteristic, require the making of many new books, or the frequent revision of old ones, if the practitioner is to keep abreast of the most recent advances. When the Reference Hand-book was given to the profession a few years since, it was received with the highest favor, as containing the views of the most reputable workers in all the various branches that pertain to medicine. However, the five or six years that have elapsed have been marked by so many invaluable results of industrious research, that one has not been satisfied with the facts as set forth in this great work, but felt he must

consult even more recent authority. As an evidence of the great advance made, the Editor states that "it was first contemplated to revise the several volumes and issue a new edition; but this would practically *make obsolete* the great number of sets of the Hand-book now in the libraries of physicians all over the world." Therefore it is that he decided to place the various subjects in the hands of efficient writers, who have brought them up to date and embodied all this new material in a supplementary volume of the same style as the original volumes, and at the same price, though it contains a much larger number of pages. Especially have the subjects of Pathology, Materia Medica and Therapeutics been added to. The advances in these branches since the issue of the original volumes, have been almost startling in their magnitude. Those who are possessed of the original volumes will hardly fail to make their set com-

plete by adding to them this volume, and it will make a valuable independent volume. The volume is freely illustrated by excellent cuts, and the mechanical work is all that could be desired.

Minor Surgery and Bandaging.

By HENRY R. WHARTON, M.D., Demonstrator of Surgery in the University of Pennsylvania. In one 12mo. volume of 529 pages, with 416 engravings, many being photographic. Cloth, \$3.00. Philadelphia, Lea Bros. & Co., 1893.

That this work was well received and needed, is evidenced by the fact that a second edition has been called for in less than two years after the issue of the original work. The reviser has done his work thoroughly, and many new illustrations have been added. The illustrations now number 416, many of them being half-tone prints from photographs. The portion devoted to bandaging is remarkably rich in illustrations which make very clear the directions for the application of every description of bandage.

Fractures, dislocations, amputations and the ligation of arteries are carefully discussed, and the chapter devoted to Minor Surgery provides full information, based upon modern ideas, for the preparation of a patient for an aseptic operation, the preparation of antiseptic dressings, and all the minutiae which are so important in securing good results in surgery.

We heartily commend the volume as a useful addition to any physician's or surgeon's library.

The Strike at Shane's.

This is a prize story, published by the American Humane Society. It is a sequel to "Black Beauty," and is a plea for kinder treatment of the horse. Doc-

tors are sometimes spoken of as "horse-killers," excusing themselves on the ground of giving the more speedy relief to human sufferers. To such we commend this little book as showing wherein it really pays a man to be merciful to his beast. It can be procured for 10 cents from the publishers.

A Practical Treatise on Diseases of the Skin.

For the use of Students and Practitioners. By J. NEVINS HYDE, A.M., M.D., Professor of Dermatology and Venereal Diseases in Rush Medical College, Chicago. New (3d) edition. In one octavo volume of 802 pages, with 9 plates, of which 3 are colored, and 108 engravings. Cloth, \$5.00; leather, \$6.00. Philadelphia, Lea Brothers & Co., 1893.

Ten years have elapsed since the first edition of this work was issued, and five years since the second. During this time the book has become quite popular, both as a text-book for students and a reference book for the general practitioner. Much new matter has been introduced into this edition, among which we find chapters on Pityriasis Rubra Pilaris, Keratosis Follicularis, Actinomyces, Leucokeratosis Buccalis, Xanthoma Diabeticorum and Pemphigus Vegetans. The most important feature of the book to the general practitioner and student, however, is the plain, practical and exhaustive manner in which the author describes the proper methods of diagnosis and treatment. In fact, the many excellent qualities that characterized the former editions are present in this one, and the general work is brought up to date. There have been some new illustrations added, but generally these are interesting more as curiosities than useful as helps to diagnosis, as they are, for the most part, representations of such exaggerated forms of disease as hardly to be met with in the experience of physicians generally.

International Clinics. A Quarterly of Clinical Lectures by Professors and Lecturers in the Leading Medical Colleges of the United States, Great Britain and Canada. Edited by John M. Keating, M.D., LL.D.; Judson Daland, M.D.; J. Mitchell Bruce, M.D., F.R.C.P., London; and David W. Finlay, M.D., F.R.C.P., Aberdeen. Vol. III. Third Series, 1893. Royal Octavo. Cloth. 356 pages.

This series is performing a useful service in furnishing the profession with choice collections of clinical lectures from the highest English-speaking authorities. This volume is well up to the standard of the preceding volumes. All of the sections are well filled, and many of the papers are illustrated.

A Text-Book of Ophthalmology.

By WILLIAM F. NORRIS, M.D., Professor of Ophthalmology in the University of Pennsylvania, and CHARLES A. OLIVER, M.D., Surgeon to Wills Eye Hospital, Philadelphia. In one very handsome octavo volume of 641 pages, with 357 engravings and 5 colored plates. Cloth, \$5.00; leather, \$6.00. Philadelphia: Lea Brothers & Co., 1893.

The book is divided into two parts, the first being written by Dr. Oliver and devoted to such subjects as embryology, anatomy, physiology, methods of examination and the determination and correction of errors of refraction and accommodation.

The second part, by Dr. Norris, treats of the diseases of the eye and its appendages, and the errors of refraction, and has a chapter devoted to some of the more common and important operations on the eye. The book is well and clearly written, and will serve as a practical guide, safe to follow. While it seems unnecessary that both the authors should have given space to the subject of errors of refraction, Dr. Norris has

only given his opinion on the general principles involved in the treatment of those defects, whereas Dr. Oliver has gone carefully and extendedly into the minutiae of detecting and correcting them. The cuts illustrating the various pathological conditions are well prepared, and the work, as a whole, is to be commended for its thoroughness and clearness upon all the subjects treated. The workmanship is excellent.

New Edition of the National Dispensatory.

Physicians and pharmacists will be interested to learn the fact that the new edition of *The National Dispensatory* is almost ready for publication. Upon its first appearance fifteen years ago a very large edition was exhausted in six months. The characteristics which secured this immediate recognition were its authoritative accuracy, its completeness, and the convenience with which desired information could be found owing to the exclusion of obsolete matter. These features have been carefully preserved in the successive editions, of which five have been demanded at brief intervals. The work contains the latest and ripest knowledge of that pharmaceutical savant, the late John M. Maisch, who had practically completed before his death the sections reserved for himself. A most suggestive "Therapeutical Index" is provided, giving practical suggestions under the various Diseases arranged in alphabetical order. *The National Dispensatory* covers by authorization the new U. S. Pharmacopœia. Though the new edition of the Dispensatory contains at least 100 pages more than its predecessor, it will probably be maintained at the same low price in view of the certainty of a large and growing demand.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

The subscription price of this JOURNAL is \$2.00 a year.

This JOURNAL is published on the fifteenth of every month, and any subscriber failing to receive his copy promptly is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL, only) requiring illustrations, free of cost to the author.

Specimen copies will be mailed to any address on application from a subscriber.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

THE NEW YEAR.

To all our readers and friends we extend kindly greeting, and wish them all happiness and prosperity during the year that has just dawned.

Though ushered in in the midst of the most far-reaching and long-continued financial panic the country has ever experienced, the new year finds us with much to be thankful for; and especially have the people of this State reason to be filled with gratitude. While other countries have been afflicted with cholera, we have been spared, and while the epidemic of yellow fever in Georgia assumed threatening proportions, we suffered only through sympathy for those who had to face the dread foe. The people of the infected district have cause to be thankful that the epidemic was so mild. And while storms and

tempests and floods laid waste portions of our sister States, bringing death to thousands and destruction of property in untold amount, we sat in peaceful security and happily escaped them all. Then, if the times have been hard, and we have encountered financial set-backs, let us begin the new year with stout hearts, remembering the story of Robert Bruce and the spider, and though we fail a dozen times, take hold the thirteenth time with a determination stronger than ever, and, as with the spider, so with us, success will come at last.

This issue begins the JOURNAL's 17th year, and the present management thank their friends, both readers and advertisers, for their generous support during the first year of their control of the JOURNAL. We have every reason to feel encouraged, for the circulation of the

JOURNAL has increased nearly 100 per cent, during the past year, while the advertising patronage is fully double what it was a year ago. We have made an earnest effort to give our readers matter which would be interesting and instructive, letting our special efforts be directed towards the profession of the Carolinas for original contributions. How generously they have responded may be inferred from a glance at the list of contributors for 1893, accompanying this issue. While by far the larger portion of matter contained in each issue has been original, we have carefully watched our exchanges for interesting matter, which has been presented to our readers in the form of condensed abstracts. We have desired to have condensed reports of the meetings of county societies from both North and South Carolina, and while a few of these have been furnished us, we are not satisfied, and hope that the different secretaries will take the trouble to make notes of their meetings for publication in the JOURNAL.

One of the most important events of the year to the JOURNAL was the action of the South Carolina Medical Association in adopting it as their official organ. We have already expressed our great appreciation of this compliment, which is indeed a high one, coming, as it does, from such a distinguished organization. Our pages will always be open to any matter that will tend to advance the good of the profession in our sister State, and we trust that those who have at heart the welfare of the local profession across the line will not fail to use them. And we trust that the profession of the State generally will turn over a new leaf and make more frequent reports of cases in their daily practice. We have long felt that the doctors in

this State are not much given to writing, and we are led to believe that those in South Carolina are not more so. The gentlemen who undertook to write a history of surgery in South Carolina, for the last meeting of the Association, were greatly embarrassed because of the dearth of literature to which they might turn in searching for the work of South Carolina surgeons. We are quite certain that in the papers presented there was not told the half of what that great State has done for the advancement of the art and science of surgery. If we can correct this, even in part, we shall feel that we have accomplished a good work.

Our readers will notice, with regret, that the name of Dr. J. Allison Hodges no longer appears as one of the Editors of the JOURNAL. When Dr. Hodges accepted the Chair of Anatomy in the College of Physicians and Surgeons of Richmond, it was his wish and intention to retain his interest in the JOURNAL; but it soon became evident that his professorial duties would require his undivided attention, and he found it necessary to abandon the idea. While the Editor will greatly miss his valued assistance in the conduct of the JOURNAL, and our readers will miss the happy productions of his fertile brain, we congratulate ourselves and them that he has consented to act as a Collaborator, so that we may still expect to hear from him occasionally. In assuming the sole control of the JOURNAL the writer realizes the importance of his mission and the great amount of work necessary for the successful conduct of a journal which shall meet the requirements of the day, and is not taking up an unweighed burden; but he undertakes the task with the determination to spare no labor in his efforts to place the JOURNAL at the

very head of the medical monthlies of this country, and make it worthy of the high distinction it enjoys of being the official organ of the medical Societies of both the Carolinas. We look to the

profession of these States, and especially the members of the two Societies, to render us their support by making the JOURNAL their mouth-piece in giving to the world the benefit of their experience.

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

The Rush Medical College, Chicago, has adopted a four-year course.

San Francisco is to have a \$6,500,000 hospital, provided for by the will of the late Mrs. Johnson, of that city.

That valuable and practical weekly, the *Medical and Surgical Reporter*, has reduced its subscription price from \$5.00 to \$3.00 a year.

The Fort Wayne Medical Magazine is a new monthly, published at Fort Wayne, Indiana, and being the continuation of McCloskey's Clinical Studies.

Dr. D. T. Tayloe, of Washington, N. C., was married in Tarboro, on the 27th of December, to Miss Athalia, daughter of Gen. John W. Cotten.

The annual meeting of the New York State Medical Society will be held in Albany, February 6, 7 and 8, 1894. The provisional programme promises many valuable papers by distinguished men.

Dr. S. C. Ayres (*Med. News*) reports much success in the treatment of marginal blepharitis with hydrogen peroxide, which is applied by means of a little mop of cotton, after the removal of the

crusts. It is painless and leaves the lid free from scales and pus.

There is on foot a movement by the Medical Alumni of the University of Virginia for the presentation to the University of an oil portrait of the late Prof. W. B. Towles, to be hung in the Library, where are to be found "the portraits of those men who have been most closely connected with the growth and success of that Institution." The committee having in charge the solicitation of funds are Drs. Stuart McGuire, J. Allison Hodges and Charles V. Carrington, all of Richmond. Should a communication, by any accident fail to reach any medical alumnus, we take the liberty of stating that the limit of subscriptions is placed at \$2.00.

The *New York Medical Journal*, of December 23, contained a tirade against the "vulgar assurance" of the Maltine Manufacturing Co., in issuing a calendar which bore the portraits of certain well-known physicians. In the following issue it publishes a letter from the Maltine Co. explaining their action. They state that it has been their custom for a number of years to send to physicians of the United States portraits of emi-

nent physicians and surgeons, and that none of these calendars nor any of these publications have ever been sent to the laity, and on this account no objection has ever been made by those whose likenesses were reproduced. They claim that they "have statistics to prove that 90 per cent. of the physicians of the United States prescribe maltine. This fact, in addition to the fact that we reach the patient *only through the physician*, would seem to amply vindicate our use of the likeness of a physician whose pictures are on public sale and have continually appeared in the public press, and who is well known as a public man. The portraits referred to were not used to push the sale of our preparations, as was the portrait of Dr. D. Hayes Agnew, recently published by us. It will be remembered that we printed under Dr. Agnew's portrait a *fac simile* of his indorsement of maltine. Our only reason for publishing the portrait of Dr. — was because we thought it would interest his medical brethren, who have shown so high an appreciation of the series of likenesses we have already published. We should like further to say that as soon as objection was made by him we

suspended the distribution of the calendars, as we would not knowingly offend even one of the honorable profession to whom we are so greatly indebted."

We are deeply pained to have to announce the death, from double pneumonia, of Dr. J. J. Summerell, of Salisbury, N. C. We hope to present in our next issue a more extended notice of this true Christian gentleman, this good and noble man, and in the meantime quote from the *Bulletin of the North Carolina Board of Health* the following account of his death: "On the afternoon of Sunday, the 17th inst., at the age of 74, this faithful physician, sterling citizen and Christian gentleman, surrounded by his children and in possession of the respect and affection of his neighbors, after a long life of usefulness and honor, passed to his reward. The State, the medical profession, and especially the cause of sanitation in North Carolina, have suffered a serious loss. While the oldest, he was, nevertheless, one of the most active and enterprising Superintendents in the State. We shall miss him—personally as well as officially."

Reading Notices.

Dr. Granville L. Fox, Slate Springs, Miss., says: "I have used Papine in two cases of typhoid fever. In all my practice of four years I have never yet found any preparation or combination that acted so admirably as an anodyne. Sometimes I combine it with Bromidia and get the best of results. I expect to keep it on hand from now on, as I do not know of anything that would exactly replace it in the experience I have had with it."

A nice desk and a chair or two do much to make a physician's office attractive and give those who visit the office a good impression of its occupant. Messrs. SNEED & Co., on advertising page 33 of this issue, invite your attention to a very select line of office and household furniture. Write to them when in need.

On March 29th last I was called to attend a boy, W. B., aged 5 years, and

on examining his chest I found mucous rales all over back and front of both lungs, great frequency of respiration (60 per minute), but no other definite physical signs. Vomiting was frequent. Fever of a hectic type was present, and the evening temperature rose to 102 or 103°, being normal in mornings. Perspiration was very copious after coughing. From all these signs and symptoms, added to the fact that his father suffers from phthisis, and he had tubercular cystitis, I diagnosed acute tuberclosis of the lungs. Up to the 12th of April the boy continued to waste until he was little more than a skeleton, and I did not think he had many more days to live. On that date, however, having received a sample of Angier's, Petroleum Emulsion with Hypophosphites, I decided to try it on him, and after two days, finding him slightly better, I continued this medicine. In about three weeks temperature was quite normal in the evenings as well as morning, and only one or two fits of coughing occurred in the course of a day, whilst the child could take food heartily, rapidly gained flesh, and could run about the room; whereas ten days back he was unable to stand alone.—DR H. RAINSFORD in *Medical Times and Hospital Gazette*.

DR. R. R. BALL, U. S. A., cites a case of puerperal eclampsia at eight and a half months, in which the urine showed at delivery, after the usual measures for allaying the convulsions, albumin one-half per cent, and urea only 250 grains in 24 hours. He says: "Uræmic symptoms continuing, the patient was put upon Buffalo lithia water *ad libitum*; no water allowed. About three quarts were drunk daily at first. The urine increased in quantity by next day, color improved, quantity of urea increased to 300 grains. Head symptoms improved. No medicine was given except to keep the bowels open. This lithia water was depended upon wholly in increasing quantities. At the end of six weeks the patient was in good condition and her urinary func-

tions were almost normal. She then decided to go off for a visit to a neighboring public resort, in order to try the effect of a chalybeate water said to have proved excellent in kidney troubles. One week's sojourn there produced such discomfort, constant headache, puffing around the ankles, and general malaise that she returned. Examination showed that the urine was only 32 ounces in 24 hours; albumin, one-quarter p. c.; some casts; urea, 260 grains. The patient was placed upon the former treatment, with immediate improvement in every way. The lithia water was gradually increased until urea showed 500 grains in 24 hours, and 75 to 80 ounces of water passed daily. The patient then rapidly convalesced and made a complete recovery. I have seen nothing in the journals concerning the free and persistent use of this Buffalo lithia water in the very earliest stages of these cases. I believe, if this were more generally adopted, many of them would escape the further development of the insufficient renal function. My only reason for presenting this case is to call attention to its beneficial effects.

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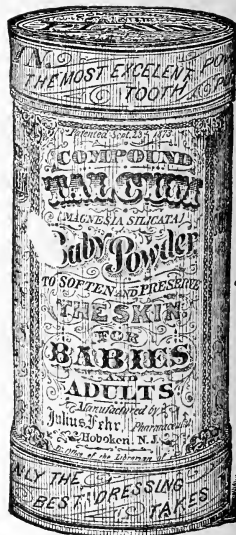
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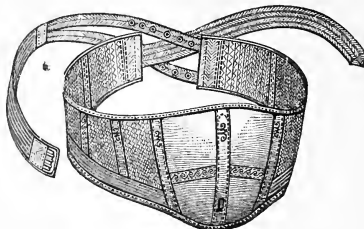
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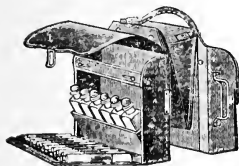
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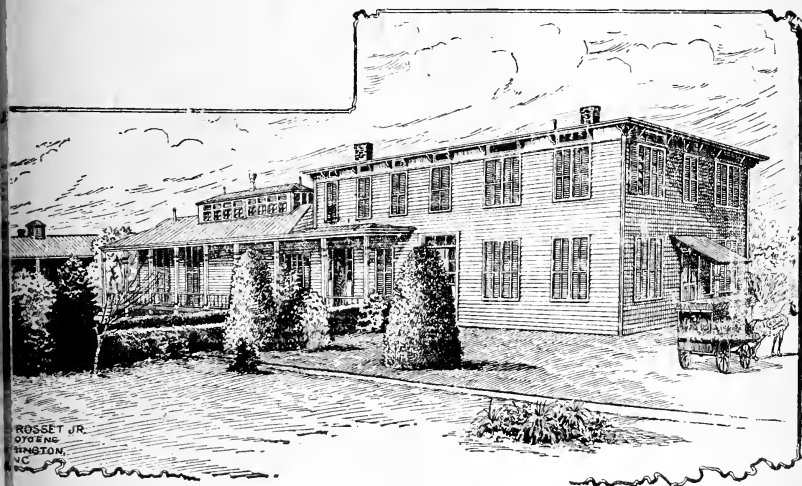
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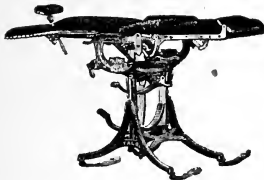


Fig. VII—Horizontal Position—Elevated.

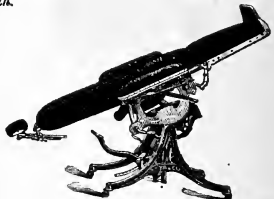


Fig. IX—Chloroform Narcosis Position

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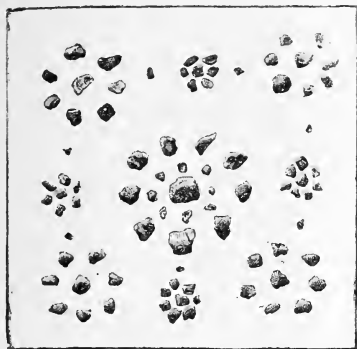


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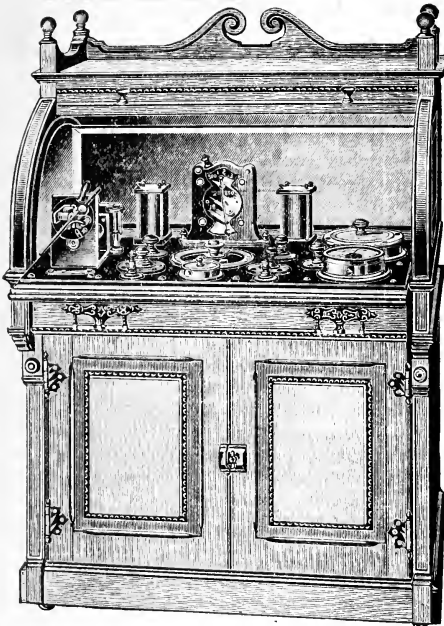
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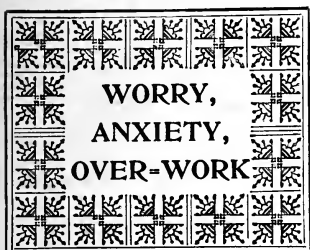
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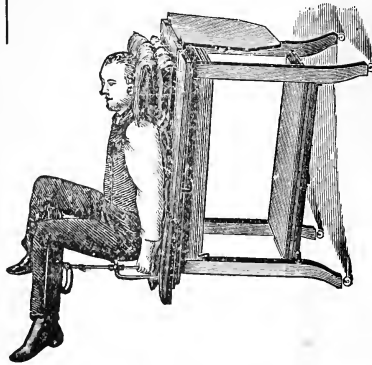
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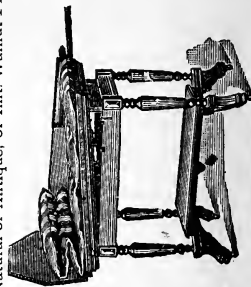
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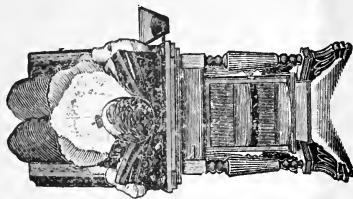
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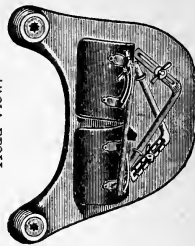
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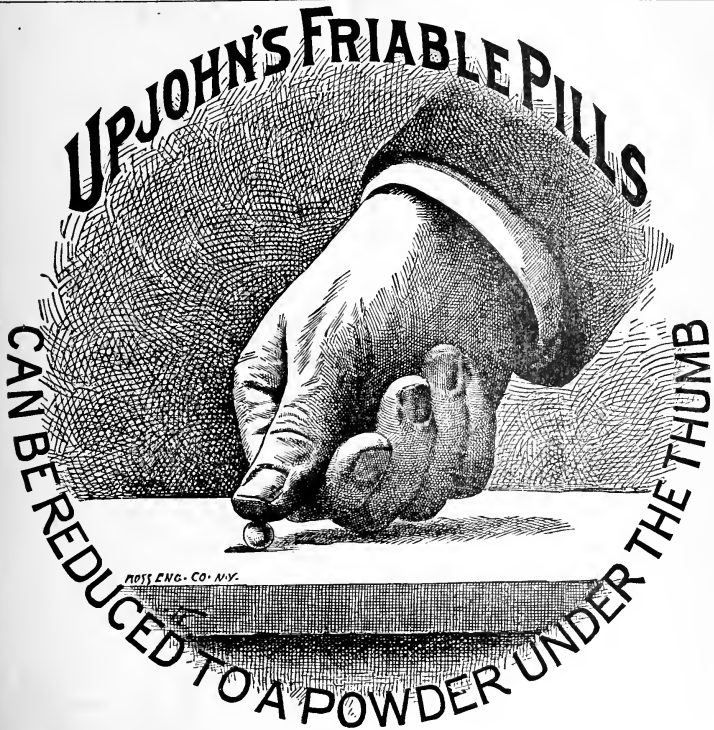


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Table of Contents.

Original Communications :

The Board of Medical Examiners of North Carolina—A Review of the Work done by the Fifth Board from 1885 to 1890— <i>Francis Duffy, M. D.</i>	43
New Remedies— <i>Charles Adrien Julian, M. D.</i>	55

Clinical Lecture :

Cataract Cases and Operations—Plastic Operations on Eyelid—Keratitis in Different Phases— <i>Joseph A. White, A. M., M. D.</i>	61
--	----

Selected Papers :

A Personal Experience with Small-Pox— <i>A. Warren White, M. D.</i>	66
Is Pyosalpinx Susceptible of Spontaneous Cure?— <i>Andrew W. Currier, M. D.</i>	71
Duane's Students' Dictionary of Medicine.....	83

Electro-Therapeutical Catalogue.....	83
A System of Legal Medicine...— <i>Hamilton</i>	84

Editorial :

Society Matters.....	77
Medical Practice Laws.....	79

Reviews and Book Notices :

A Practical Treatise on Materia Medica and Therapeutics— <i>Bartholow</i>	80
Surgery— <i>Gallaudet</i>	81
Transactions American Ophthalmological Society.....	82
Principles and Practice of Surgery— <i>Ashhurst</i>	82

Necrology :

J. J. Summerell, M. D.....	84
Edmund Burke Haywood, M. D.....	85
James Parrish, M. D.....	86
Miscellaneous Items.....	87
Reading Notices.....	90

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Fairchild Bros. & Foster.....	Cover	1	E. A. Yarnall Co.	18
Parke Davis & Co.....	"	1	Wheeler Chemical Works	18
Combination Offer.....	"	2	H. H. Ballard	18
Mr. Fellow.....	"	3	C. F. Boehringer & Soehne	19
N. Y. Pharmacal Co.....	"	4	Retreat for the Sick.....	20
W. H. Schieffelin & Co.....	1	1	St. Luke's Home	20
Daggett Chair Co.....	2	2	H. O. Hyatt, M. D	20
The Upjohn Pill and Granule Co.....	3	3	W. Scott Marshal, M. D.....	20
Sharp & Dohme.....	4	4	Wilmington City Hospital.....	21
Henry K. Wampole & Co.....	5	5	Canton Surgical Chair Co.....	22
Summer School of Medicine.....	6	6	Scott & Bowne.....	23
Purcell, Ladd & Co.....	7	7	Philadelphia Opt. and Watch Co.....	23
Virginia Pharmacal Co.....	7	7	Codliver Glycerine Co.....	23
McArthur Hypophos. Co.....	8	8	Isaac Phillips.....	24
Southerland	8	8	Mariani & Co.....	25
Antikamnia Chemical Co.....	8	8	Geo. R. French & Sons.....	25
Renz & Henry.....	9	9	Walker-Green Chemical Co.....	25
Dr. N. B. Shade	9	9	Lambert Pharmacal Co.....	26
The Doliber Goodale Co	10	10	N. Y. Pharmaceutical Co.....	27
Wm. R. Warner & Co.....	11	11	Hamburg-American Packet Co.....	27
Peacock Chemical Co—Sultan Drug Co.....	12	12	Thos F. Goode.....	28
Battle & Co.....	13	13	Maltine Mfg. Co.....	29
The Sanitarian.....	13	13	E. V. Richards.....	29
Od Chemical Co.....	14	14	Harris Lithia Water.....	30
Julius Fehr, M. D.....	14	14	Angier Chemical Co.....	31
Kentucky School of Medicine.....	15	15	McIntosh Battery Co.....	31
Bellevue Hospital Medical College	15	15	Sneed & Co.....	32
University of Virginia.....	15	15	Analga Chemical Co... ..	32
University of Pennsylvania.....	16	16	J. S. Tyree.....	33
University of North Carolina—Med Dept.....	16	16	Vaccine Virus.....	33
Bartlett, Garvens & Co.....	16	16	Dr. J. P. Munroe.....	33
College Physicians and Surgeons, Rich.....	17	17	Swapnia.....	34
			Golden Tonic.....	34

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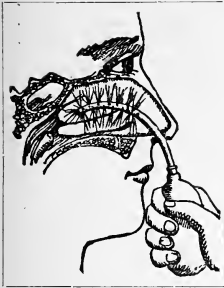
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
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NORTH CAROLINA MEDICAL JOURNAL.

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THE BOARD OF MEDICAL EXAMINERS OF NORTH CAROLINA—A REVIEW OF THE WORK DONE BY THE FIFTH BOARD FROM 1885 TO 1890.

BY FRANCIS DUFFY, M.D., Newbern, N. C.

At the meeting of the State Medical Society of North Carolina in May, 1890, the term of office of the fifth Board of Medical Examiners of the State expired. As with all preceding Boards, the term had been six years, not by legal enactment limiting the term, but by precedent established by the State Medical Society, to which was delegated the power to elect the Board. This Board, although the fifth in the history of the State, was the first which had operated under the amended laws regulating the practice of medicine in North Carolina, and therefore occupied a unique position in the history of such Boards. The then retiring members of the Board, for reasons which they deemed sufficient and which will be further elaborated, earnestly desired that a history of their work be written and published. The writer was requested to undertake that

little task, and it was expected that he would comply within a short time, but failed to do so, or refrained for reasons which seemed sufficient to him.

At the meeting of the State Medical Society in May, 1893, the request was repeated, and the following pages are offered in compliance. There are especial reasons why the work of this particular Board should be recorded and discussed.

The members of the Board were as follows:

Dr. J. A. REAGAN, Weaverville, Buncombe county.

Dr. W. R. WOOD, Scotland Neck, Halifax county.

Dr. WILLIS ALSTON, Littleton, Warren county.

Dr. W. J. H. BELLAMY, Wilmington, New Hanover county.

Dr. P. L. MURPHY, Morganton, Burke county.

Dr. A. W. KNOX, Raleigh, Wake county.

Dr. FRANCIS DUFFY, Newbern, Craven county.

It will be seen that the Board was chosen with some reference to locality, not only to represent different parts of the State, but to make it convenient for applicants to obtain temporary license. Since the year 1859 the laws of North Carolina had, to some extent, regulated the practice of medicine in this State. The Legislature constituted a Board of Medical Examiners (seven in number), the choosing of which was delegated to the State Medical Society. The term of office of each Board was made, either by legislative enactment or disposition of the Medical Society, to be six years. They were required to meet once a year, when the State Medical Society met, and to examine in the seven cardinal branches of medicine all applicants who presented themselves for license. Provision was also made for the granting of temporary licences by two members at any time between the annual meetings of the Board. To this Board was given the authority to make their own by-laws, to fix their own standard of required proficiency and to conduct the examinations as they saw fit.

All persons who began the practice of medicine after the year 1859 were required, under the provisions of the law, to obtain license from the Board of Medical Examiners before they would be recognized as legal practitioners or be allowed to enforce collection of fees by the ordinary processes of law. But it was not a misdemeanor, nor was there any penalty attached to the violation of the law, except the provision as to inability to enforce collection of fees. Even at the time of its enactment the

law had but little more than a moral force, which affected only practitioners of the better sort—those who preferred to take the highest legal and moral plain attainable; although at that time there were instances where illegal practitioners were debarred from collecting their fees, as, for instance, when administrators of estates would plead the laws in bar of recovery. But after the Civil War there were very few persons from whom collections could be legally enforced. The general impoverishment of the people, together with stay laws, bankrupt law and homestead exemptions, put all on about the same level as far as power to collect fees was concerned. Consistent with this state of affairs the examinations of the first Boards—those preceding the enactment of the amended laws, were often more perfunctory than otherwise. Though composed of some of the best and most competent physicians in the State, they had no high standard of requirements, nor were they circumspect in granting licenses. As has been stated, only the better sort of beginners presented themselves for licenses, which were not indispensable, and it was natural to deal gently with the young men under the circumstances. It is recorded (though the record may not be accurate) that of 122 applicants for examination by the first three Boards, 118 were licensed. The fourth Board, though operating under the same inefficient laws, granted licenses to 183 out of 208 applicants; of the 25 rejected 16 were graduates of chartered medical schools. This is a good record under the circumstances, and was responsive to the growing demand for more thorough medical education and precursive of the dawn of a new era in the medical affairs of the State. About the year 1884 there was an organized movement in the North Carolina Medical Society

to have enacted more stringent laws regulating the practice of medicine, and the next session of the Legislature so amended the laws as to make it a misdemeanor, punishable with a fine and imprisonment, at the discretion of the court, to practice medicine for fee or reward in the State without the license of the Medical Examining Board. Under the new law there was no alteration in the manner of electing the Boards, which, as formerly, were fully empowered to arrange the details of their examinations, make their own by-laws and fix the standard of proficiency.

The enactment of such a law was considered by many to be a great stretch of power—a very questionable abridgement of the natural rights of the people—an unwarranted interference with those practitioners who essayed to cure or alleviate disease in some manner not known or recognized by the regular schools, or it might be of those who pursued the regular methods and had demonstrated their practical usefulness, but who were deficient in theoretical training, or had lapsed into forgetfulness of many things with which they were likely to be confronted in an examination. Some such men were situated in remote and sparsely settled localities which were uninviting fields for men of best capacity and equipment. They were perhaps as useful as any who could be obtained to fill their places. Besides, under any circumstances, it was thought by some that the people ought to be allowed to choose for themselves their own medical advisers. An Examining Board legally invested with such arbitrary powers was looked on with suspicion. They might have more concern for the protection of their craft than for the welfare of the public, and by hard conditions reduce to a minimum the number of their competitors, and

themselves and coadjutors become more exacting with the people.

Many other States had refused to grant such laws, very few had passed adequate laws regulating the practice of medicine, and no other State has given a medical society such complete control of its medical affairs. North Carolina in Colonial times had been the pioneer in the field of liberty—she was now, among the States, in the van in the establishment of laws restricting the indiscriminate practice of medicine.

The Medical Society of North Carolina was a comparatively small minority of the practicing physicians of the State. Through their organized efforts the medical laws were enacted. It mainly devolved upon them and the Examining Board of their choice to popularize the law, or at least make it tolerable to the people generally.

Two years must elapse before the next session of the Legislature, when the law could be repealed. It was deemed inexpedient by the Board to establish at once a very high standard of proficiency or to be uniformly exacting with an applicant for license, nor was this course indicated merely by considerations of policy, but justice was coupled with expediency—justice alike to the practitioner and to his clients.

Immediately after their election at Raleigh the Board met and organized—Dr. W. R. Wood President; Dr. W. J. H. Bellamy Secretary.

It was decided that the branch of each Examiner should be determined by lot and to rotate annually—the order of rotation having been designated. After two years this was discontinued and the branch of each examiner was made permanent during his term of office. Under this arrangement the branches were distributed as follows:

Dr. Wood, Chemistry and Pharmacy.
 Dr. Reagan, Physiology and Hygiene.
 Dr. Bellamy, Therapeutics and Materia Medica.

Dr. Alston, Practice of Medicine.

Dr. Knox, Obstetrics and Diseases of Women and Children.

Dr. Murphy, Anatomy.

Dr. Duffy, Surgery and Diseases of the Eye and Ear.

The Board thought it well to make the form of "License or Diploma," as designated by the statute, of more imposing appearance than the small sheets which had been used by their predecessors. For this end a lithographic stone was purchased and a number of large-size paper license forms printed therefrom, which licenses were issued to successful candidates on payment of the fee prescribed by law, viz: \$10. In addition to these a number of parchment forms were printed, which were procurable at the option of the licentiate on payment of an extra charge of \$1.50. An official seal was also procured and the seal of the Examining Board stamped on all licenses issued.

The first examination of this Board was held at Durham on the 18th day of May, 1885, and on successive days during the annual session of the North Carolina Medical Society. The members were all present excepting Dr. Knox, who was unavoidably detained at home. Following the example of the preceding Board, the examinations were conducted orally.

The most remarkable class which had ever presented itself for examination in North Carolina was present. In numbers there were 101, and in material as varied as might be conjectured from the foregoing pages. There was an element of well-trained, well-dressed young men, who, having had collegiate preliminary educations, had graduated

from the best medical schools in the country. There were courtly seniors who came within the scope of the law, and to examine whom was an embarrassment to the comparatively young examiner. There were one-course graduates of varying merit—some of them from remote country localities in which their medical exploits had won them renown. There were young men of very limited literary training who had been received as "Beneficiaries" for nominal sums in cheap medical schools, hurried through the curriculum in a prescribed brief period, and graduated on payment of the usual fee of \$20 or \$30. There were even those who had not attended any college, perhaps some former hospital steward, who had been studious and had acquired some practical proficiency, but who did not even aspire to the giddy mazes of theoretical medicine. There was a sprinkling of even a lower class with no medical training, whose exploits with calomel, castor-oil and worm-killer had earned for them the appellation of "Doctor," who did not know enough to realize the farcical figure they would cut before the Examining Board.

The six Examiners present had a very laborious session, working all day and a great part of the night in the examination of this large number, more than a few of whom, having failed, were allowed re-examinations. The low standard of 60 $\frac{2}{3}$ p. c. was adopted, for reasons already discussed. The Board, in elevating the standard of the medical profession, had determined to make haste slowly. Of the 101 candidates, 84 were licensed; of these 10 were non-graduates. It may not be amiss to say that more would have been rejected but for the older members of the Board. It may be fortunate that the State had the benefit of their conservative counsel. There were

some unusual incidents in connection with the work of the Board at Durham; for instance, one of the elder brethren was chosen as a "lecturer" to chide and admonish such of the licentiates as passed "by the skin of their teeth." When favorable notices were being distributed to the fortunate ones, the subject of the intended discourse was invited by the Secretary to come into the Examiner's room and appear before the Board. It was obvious that all was not well with him. The apprehensive and perspiring aspirant for medical honors was admitted with due ceremony, while the faces of the Examiners wore an aspect of profound and consequential gravity. This writer will not attempt to report *verbatim* the eloquent and impressive words which were spoken on these occasions, suffice it to say that the accused was informed that the Board were the guardians of the people from the assaults of incompetency, and that henceforth he who aspired to the dignity of a North Carolina doctor must lift himself to an enviable height, that as gleaners in the medical field we were separating the chaff from the wheat, and that there were grave doubts as to the pile to which he belonged; that the Board would not stand sponsor for him before the public, unless he promised to diligently search the medical scriptures and to repair the deficiencies which his examination had made so painfully manifest and of which he was fully informed. As might be expected, the required pledges were always given. This feature after the first meeting was discontinued.

But, notwithstanding the proud position which the Board took as to standard, they "would listen to reason." As has been stated, in all seriousness, it was incumbent on them to consider other things than mere competency,

especially that sort of proficiency which is indicated by ability to answer questions propounded.

The work of the Board at Durham (as on all other occasions) was done in a most careful and painstaking manner, and conscientiously, according to the views of the Examiners, among whom there were sometimes differences of opinion. But as regards the average standard of proficiency of the licentiates, it was the low-water mark of the Board's work, and should have been, according to their purpose to *gradually* elevate the standard of requirement.

The question of holding any session during the year and before the meeting of the Medical Society, was considered, on account of the large class making the work of the Board day and night too arduous to be endured, and for another more important reason, viz: to give the larger number of the (then) illegal practitioners the best possible facilities for complying with the law. To have the law on their side, the Board decided to consult the Attorney General of the State. Dr. Reagan was requested to do the correspondence.

The following letter from the Attorney General gave the proper assurance:

RALEIGH, May 19, 1885.

TO DR. REAGAN:

My Dear Sir:—I think the Board of Medical Examiners can meet at times and places other than the meetings of the State Medical Society. The statute requires that the Board of Medical Examiners shall meet at the time and place where the Society shall assemble, but it does not prohibit them from meeting at other times and places. I feel quite confident that licenses granted or revoked at a special meeting would be as valid and lawful as if issued or directed at the regular annual meeting. The spirit of the law is that the profes-

sion and the public shall be protected from ignorance and malpractice by means of examinations by competent persons preliminary to the right to practice, and at the same time to offer to gentlemen desiring to enter the medical profession and who may have qualified themselves, regular opportunity, *at least once a year*, to make application for examination and licenses. It certainly cannot be considered a violation of the act if the facilities for examination are extended, while the guards prescribed by the statute are preserved. While the Board *may* assemble at other times and places, it cannot dispense with the necessity or requirement for its meeting contemporaneously with the Society.

Very truly yours,

THEO. F. DAVIDSON,
Attorney General.

Acting on this, it was decided to meet at Raleigh on the 24th day of August, 1885, and there to hold an examination and to continue to Asheville and begin a session on the 27th. All the members of the Board were present at these meetings except Dr. Alston. At Raleigh 16 were examined and 13 licensed, 3 non-graduates. At Asheville 37 were examined and 22 licensed, 10 of whom were non-graduates, but had had one or more courses of medical training. Thus ended the examinations of the first year. At Durham a little less than 17 p. c. had been rejected, at Raleigh and Asheville combined a fraction over 33½ p. c., making an average of nearly 23 p. c. of rejections during the year. The large number of rejections at Asheville (40 p. c.) was on account of the inferiority of the class, rather than the rigor of the Examiners. At Asheville a committee, consisting of Drs. Murphy, Knox and Duffy, was appointed to draft

rules for the Board and report at Newbern, the place appointed for the next meeting. The following rules were adopted:

1. The Board of Medical Examiners shall meet on the day preceding every meeting of the State Medical Society.

2. A quorum being present, an official meeting of the Board shall be held before commencing examination of candidates, and also after all examinations have been finished. At these meetings all questions or subjects for the consideration of the Board, except the qualifications of candidates for license, shall be discussed or determined.

3. The Board shall be prepared to examine applicants from 8 a. m. to 2 p. m., and from 4 to 7 p. m.

At 2 and at 7 p. m. the whole Board shall assemble to pass upon qualifications of candidates. No other business shall be transacted at these meetings, except by unanimous consent of the Board.

4. The Secretary only shall announce the results of examinations to candidates as soon as it is practicable; and licenses shall not be issued before the close of afternoon session of the Board.

5. A candidate who has signally failed upon one fair examination, shall not be re-examined during that session of the Board; doubtful cases may be re-examined and reconsidered, but only after an examination has been made of every other candidate who may present himself, except by the unanimous consent of the Board.

6. Re-examinations shall be conducted only on the branch or branches of medicine upon which the candidate is considered to have failed. He shall be examined in the presence of the whole Board by the Examiner or Examiners in whose branch or branches he has failed, but the questions propounded shall have

been previously submitted to the whole Board and approved.

7. In estimating the qualifications of a candidate a preliminary canvass of the merit of the candidate shall be taken, in which each Examiner shall rate him according to merit in his (the Examiner's) own branch. A vote based upon the reports of all the Examiners shall then be taken, which vote shall decide the election or rejection of the candidate.

8. In deciding the results of re-examinations the Examiner who has (according to rule) conducted the examination, shall cast the first vote.

9. The Secretary shall require a written certificate of the moral character of each candidate and that he is 21 years of age.

10. The Secretary shall number candidates in the order of their presentation and payment of fees, and the Examiners shall examine them in the order of their number.

11. The Secretary shall furnish each member of the Board, after the adjournment of the same, a printed list of all licentiates of the Board, also a written list of all rejected candidates.

The Board met at Newbern May 18th, 1886. All the members present.

There were 63 applicants, 46 of whom were licensed, 3 being negroes—only one non-graduate, which was an improvement on preceding classes. About 27 p. c. were rejected this year out of a better class as compared with 23 p. c. the first year. Only during the first year was there more than one meeting held by the Board. At Newbern the Board worked the whole of Friday night and until sunrise Saturday, so as to allow applicants to get away on Saturday morning's train. They chose this hardship rather than do their work carelessly or to inflict loss of time and money on the applicants for license.

as there was no *Sunday*-train leaving Newbern.

At this meeting the question of written examinations was considered. A committee, consisting of Drs. Bellamy, Knox and Duffy, was appointed to report on the subject at Charlotte, the place of next meeting.

The Board met at Charlotte on April 11th, 1887. All present.

The Committee on Written Examinations thought it inexpedient to adopt compulsory written examinations at this meeting, but advised that the examinations be either written or oral, at the option of the candidate. Thus written examinations were delayed until two years later, which was unfortunate. But the difficulties, such as obtaining a suitable hall and conducting different sections at once, seemed greater than they proved to be when such examinations were finally determined upon. There were 48 applicants at Charlotte, 34 of whom were licensed, 2 non-graduates; nearly 30 p. c. of rejections, as compared with 27 p. c. the second year.

The Board met at Fayetteville May 8th, 1888. Written examinations were now definitely determined upon for next year and a committee appointed to adopt rules for the same.

At this meeting all re-examinations were held in writing, and if necessary supplemented by oral. It was also resolved that all examinations for temporary license should thereafter be in writing, and should be submitted to the Board at the next annual meeting, and that permanent licenses might be issued thereon, at the discretion of the Board, without further examination of the applicant.

At this meeting there were 53 applicants, of whom 36 were licensed, refused 17, which is little above 32 p. c., as compared with nearly 30 p. c. the year

before. Among the licentiates was one non-graduate. He had been a druggist, having passed the rigid examination of the North Carolina Board of Pharmacy and had read Medicine with a tutor, and then attended one course at a medical college, afterwards spending a year under the guidance and quizzing of his medical tutor. He, like a number of other non-graduate licentiates of the Board, subsequently attended another medical college course and graduated. At Asheville a non-graduate (Dr. J. H. Way), from the Richmond Medical College, made the highest score and was licensed, but he attended another course and graduated from this College.

D. Appleton & Co. having through the North Carolina Medical Society offered a prize of \$25 in books to the licentiate who was adjudged to have passed the best examination, the Board had now to make that award. Dr. H. Q. Alexander was awarded the prize, Dr. J. G. Sherrill being barely behind him. In this connection, a negro was favorably considered by some of the examiners, but the average of his examinations did not compare favorably.

Announcement was made in the NORTH CAROLINA MEDICAL JOURNAL that at the next meeting, which would be at Elizabeth City, the examinations would be required in writing, and at least 70 p. c. must be made to obtain license.

The Board met at Elizabeth City on Saturday, April 13th, 1889 (the North Carolina Medical Society meeting on the 16th), and made arrangements to hold the written examinations. A commodious hall was obtained, also blackboards, tables, etc., without much trouble.

Drs. Reagan and Murphy, of the committee which had been appointed to draft rules for conducting written examinations, had been joined at Newbern

by Dr. Duffy, and these three took the steamer to Norfolk and wrote the rules *en route*. Dr. Knox had been appointed one of the committee, but was a few days behind owing to obstruction of trains by excessive rains.

The following rules were adopted by the Board :

RULE 1.—In the examination of candidates as many are to be examined at the same time as the circumstances will permit, making each section as large as possible.

RULE 2.—Two members of the Board shall be present with each Section during the examination, unless by consent one may be absent for a short while.

RULE 3.—One of the Examiners present shall not be engaged in any business except supervising the examination at the time it is going on, to prevent irregularities.

RULE 4.—Each candidate shall sign his papers with a *nom de plume*, and shall sign a pledge that he has neither given nor received any information concerning the examination, nor used any unfair means—this pledge to be given to the Examiner with his real and assumed name, in a sealed envelope. When the paper has been finally passed upon, the Secretary shall open the envelope and attach the pledge and the name to the paper bearing the assumed name found in the envelope.

RULE 5.—Any candidate found guilty of violating his pledge in giving or receiving information, shall be adjudged guilty of grossly immoral conduct, and shall be rejected.

RULE 6.—There shall be one set of questions for each Section, and the same set shall not be used by any other Section.

RULE 7.—Each Section shall be allowed four hours to complete the examination on the branch the Section

is on; the time, for cause, may be extended to six hours by the Examiners conducting the examination.

RULE 8.—The candidate shall make 70 p. c. this year, according to the rules of the Board, but for the year 1890 the minimum standard will be 80 p. c.

RULE 9.—Any candidate who does not make 33½ p. c. on any one branch, shall be rejected; and, for cause, he may be permitted to have a second examination on that branch; and if he does not get 33½ p. c., his rejection shall be final.

RULE 10.—The Board may, under certain circumstances, supplement the written examination with an oral examination, or, in extreme cases, may substitute an oral for a written examination.

Dr. Murphy moved that all examinations in the future for temporary licenses shall be oral.

When a candidate made over 66½ p. c., but less than 70 p. c., he was allowed to withdraw, and could stand for temporary license during the year. Information having been received that certain physicians were indiscriminately dispensing alcoholic liquors to circumvent the laws, it was resolved that this offence constituted "grossly immoral conduct," and that their licenses would be rescinded under the provisions of the statute. There were 63 applicants at this meeting, 45 of whom passed, 18 failed; this was little less than 29 p. c., which was less than the failures of last year, notwithstanding a higher standard. This was the best class yet. Dr. W. H. Cobb, Jr., was awarded the Appleton prize. In conducting this examination, printed questions had been used, also black-boards. It was decided to use no more printed questions, as the black-boards were ample and safer. Written examinations were now established, and were considered far preferable to oral.

The Board met at Oxford May 24th, 1890, with all present. It was ordered that the rule with reference to rescinding licenses for abuse of privilege to handle alcoholic liquors be published in one religious paper of each denomination in the State, and in the *Churchman*, which is published in the North.

Under the rule, 80 p. c. was now required as the minimum standard of proficiency. There were 72 applicants, 46 of whom passed and 26 failed—no non-graduates. Little over 36 p. c. But it was a comparatively good class. Dr. R. S. Primrose was awarded the Appleton prize.

This was the last examination of the fifth Board of Medical Examiners of North Carolina.

Since the beginning of its work in the State we have reason to believe that many medical colleges had, before the date of this last examination, elevated the standard of their requirements for graduation. And we believe that the standard of requirement in North Carolina was instrumental in contributing to that result. Yet the average standard of the colleges was much below the State standard, as evidenced by the rejection of 36 per cent. of a class of 72 medical college graduates. A total of 461 applicants were examined in the six years, of which 336 were licensed; refused 127, which is a rejection of nearly 27 per cent. of the whole, ranging from a little less than 17 per cent. at the first meeting to over 36 per cent. at the last, and the last result out of a much better class of applicants.

The following tabulated statement will show some of the results of the examinations as regards the students of the different colleges. The non-graduates, whether licensed or rejected, are not tabulated or computed, as no responsibility for them could attach to

any college; but it is noteworthy that, out of 4 *non-graduate* applicants from the Virginia Medical College, 3 passed, and out of 7 non-graduates from the University of Virginia, 5 passed. Out of 11 from the Jefferson Medical College of Pennsylvania, 8 passed:

* COLLEGES.	Graduates Licensed.	Graduates Rejected.
COLLEGES OF NEW YORK		
University of New York	26	...
College of Physicians and Surgeons	3	...
Be levue Medical College.....	17	3
Long Island Medical College.....	3	...
Homœopathic Medical College.	1	...
COLLEGES OF PENNSYLVANIA.		
University of Pennsylvania.....	3	...
Jefferson Medical College.....	36	2
Woman's Medical College.....	1	...
Medico-Chirurgical College.....	1	2
COLLEGES OF MARYLAND		
University of Maryland.....	76	12
College Phys. and Surg., Balt.	70	22
Baltimore Medical College.....	3	4
Baltimore Univ. School of Medicine	1	1
COLLEGES OF VIRGINIA.		
University of Virginia.....	12	...
Medical College of Virginia.....	3	...
COLLEGES OF KENTUCKY.		
Louisville Medical College.....	16	9
Kentucky School of Medicine.....	5	2
University of Louisville.....	3	4
COLLEGES OF LOUISIANA.		
University of Louisiana.....	2	...
Tulane University.....	1	...
COLLEGES OF GEORGIA.		
Atlanta Medical College	3	5
University of Georgia.....	1	1
Eclectic Medical College	1
Southern Med. Coll., Atlanta	2	2
COLLEGES OF SOUTH CAROLINA.		
Charleston Medical College.....	...	1
Medical College of South Carolina	6	...
MISCELLANEOUS COLLEGES.		
Vanderbilt University.....	4	8
University of Michigan.....	1	...
Leonard Med. Coll for colored men	11	2
Nashville Medical College.....	1	...
Western Reserve Un., Cleveland, O	1	...
Howard University, of Washington	...	1

Among the good results of *written* examinations was the stopping of complaints of rejected candidates. The Examiners had endeavored to be as impartial in the oral examinations as they now were compelled to be under the new system by the use of the *nom de plume*: but candidates who failed would sometimes seem to differ very much as to their own merits from those who had been legally empowered to pass thereon, and they and their friends were sometimes loud and offensive in their complaints against those who would have been much better pleased to have licensed them could they have done so conscientiously in the discharge of their delicate and responsible duty.

The Examiners, after the adoption of written examinations, had proclaimed that thereafter, when any complaints were made, the questions which had been submitted to the applicant, together with his written answers thereto, would be published in the NORTH CAROLINA MEDICAL JOURNAL. It is notable that none who were rejected chose to make that exhibit. We had a higher standard, more rigid conditions and fewer complaints.

At the last meeting of the Board the question arose of licensing certain physicians *without examination*. The last amendment to the medical laws required all physicians to register at the Clerk's Office in every county before the first day of January, 1890. Qualifications for such registration having been established, it was in some respects an important amendment, though liable to abuse from too liberal construction of the statute, and also from extension of the time for registration by successive Legislatures. The Board foresaw the difficulties that were likely to arise, and were disposed to make very liberal use of their functions in obviating trouble,

not only for the sake of those meritorious physicians who were unfortunate in having failed to register, but also for the politic course of keeping the control of the matter in the hands of their successors. Desiring the opinion of the Attorney General on this and another matter, the Board appointed Drs. Duffy and Knox to consult him. The following correspondence resulted :

OXFORD, N. C., May 24, 1890.

HON. T. F. DAVIDSON, Att'y General,
Raleigh, N. C. :

Dear Sir :—There are a number of physicians in North Carolina who, according to the terms of the recent amendment of the laws regulating the practice of medicine in this State, were entitled to register before January 1, 1890, as legally qualified practitioners of medicine, but who, from various causes, failed to exercise their privileges during the time prescribed by law, and have, therefore, under the operation of the law, become debarred from practicing "medicine." Some of these persons are licentiates of the Board of Medical Examiners—others are *not*. The Board of Examiners find themselves in an awkward position, owing to this unexpected hardship, which has befallen many, and desire, if they can lawfully do so, to exercise their discretion in licensing such persons *without examination*, so as to restore them to their rights, as contemplated under the law. It is obvious that many of these men would not be able to stand the examinations as they are now conducted; and the Examiners are unwilling to hold merely formal and farcical examinations, and then confer on these new "licenses or diplomas," setting forth high qualifications and couched in the same language as the licenses obtained by those who have successfully stood the severe tests. We desire from you

an expression of opinion as to the extent of the power of the Board of Examiners in these matters, and as to the legality of framing such form of license and conferring the same on the persons in question without examination, so as to restore them to their former rights, which have been forfeited through inadvertance or unavoidable circumstances. There are good reasons why the time limiting the privilege of registration *should not be extended* by the Legislature—for instance, one, making oath that he had been in the practice of medicine before a certain time, was allowed to register. This was sometimes construed to admit druggists and charlatans not contemplated as practitioners under the law. We desire to ask your opinion on another point, viz : The Board of Examiners are empowered, under the law, to rescind licenses of licentiates guilty of "grossly immoral conduct." Are the powers of the Board in these respects *restricted to persons having licenses*, or are they the custodians or guardians of the morals of *all* the legally qualified practitioners of the State? It would be obviously unjust and discriminating if *licentiates of the Board* could be debarred from practicing medicine on account of grossly immoral conduct, while other practitioners, *not* licentiates of the *Board*, could *not* be so debarred for the same cause. For your convenience, we enclose a copy of the codified laws on these subjects, including recent amendments.

Please let us hear from you as soon as possible during the present session of our Board, as these are questions requiring an early solution, and likely to occur on Monday or Tuesday. Direct your communication to "Irwin Place Hotel."

Respectfully,
FRANCIS DUFFY, } Com.
A. W. KNOX, }

The following reply to the above was received from the Attorney General :

ALEXANDER, N. C., May 28, 1890.

MESSRS. FRANCIS DUFFY and A. W. KNOX, Com., Oxford, N. C. :

Gentlemen :—Your letter of the 24th inst. reached me last night, and, apprehending that you might have occasion to act upon the matter before a letter could reach you, I (this morning) telegraphed my opinion upon the first point submitted. The conclusion I reached is that, the purpose of the creation of the Board being to provide a test for the qualifications of those who may desire to engage in the practice of medicine in this State, where a person has submitted once to that test and has been found possessed of the necessary qualifications, it was not essential that another examination should be had before he was entitled to register under the recent act. The first examination will be presumed to have furnished *all* the information to the Board necessary to the exercise of its powers to license. I do not mean to say that the Board is bound in every instance to grant the license without an additional examination, for there may be cases in which it would be proper to re-examine the applicant, but I think a sensible and practical construction of the law will confer upon the Board sound discretion in the matter. For reasons satisfactory to itself, the General Assembly exempted those persons designated in the last proviso of Section 3132 of the Code, as it now stands, from an examination by the Board, and I think they are upon the same footing as those who have been licensed after examination. The Board might, however, feel it right to exercise the discretion which I have said they have in respect to those who have been examined and licensed with greater caution. The reasons for this

are obvious, doubtless, to the profession : I am inclined to the opinion that the power to revoke license, under Section 3133 of the Code, is confined to those cases where the Board has granted the license. Since the Registration Act it might be the Board, under the conditions imposed in the statutes, could revoke or vacate the license issued upon a proper registration; but this is conjecture, and I venture to suggest that it will be more prudent not to attempt the exercise of a doubtful power in so grave and delicate a matter. The General Assembly will be in session before the next regular meeting of the Board, and no doubt will amend the law in all proper respects.

Hoping the delay in responding to your letter has given the Board no inconvenience,

I am, very respectfully,

THEO. F. DAVIDSON,

Attorney General.

It will be seen that the foregoing opinion of the Attorney General was all that could be desired in regard to granting licenses to such as, being qualified, had failed to register. Consequently the Board issued a number of such licenses. Their work was now ended—their term of office having expired and their successors having been elected, the work passed into their hands.

The new Board and the members of the retired Board now held a joint session, so that the one could better take hold where the other left off. Dr. C. J. O'Hagan, of the North Carolina Medical Society, was asked to meet with them and to preside over the meeting.

After an interchange of views, the following resolution was offered by Dr. Murphy and unanimously adopted :

Resolved, That in the case of those physicians who failed to register and

were qualified to do so, either by former examination or by legal statute, the Board may, in their discretion, issue them license without fee.

It was moved that a committee, consisting of Drs. Murphy, Knox, Duffy, R. L. Payne, Jr., and Geo. G. Thomas, draw up a form of certificate to issue to the class of physicians alluded to.

The following was the form reported, which was unanimously adopted :

Whereas, _____ having failed to register before the first day of January, 1890, as provided by law, hath applied to the Board of Medical Examiners of North Carolina for license to practice medicine, therefore we, by virtue of discretionary authority vested in us by law, do hereby issue to him license to practice medicine in the State of North Carolina.

[Seal.]

} Signed by the mem-
bers of the Board
in office.

The following resolution, offered by Dr. George G. Thomas, was unanimously adopted :

Resolved, That the license contemplated in the form just adopted shall be understood to be issued to the applicant upon the certificate of the Clerk of the Superior Court of his county that he was a physician practicing medicine as a means of livelihood prior to March 7th, 1885, and when the Board of Examiners shall be satisfied that he is of good moral character.

In closing this imperfect record of the Board whose work has been reviewed in these pages, the writer desires to refer to the especial efficiency of the worthy Secretary, Dr. Bellamy. Besides performing his work as an Examiner, he was an ideal Secretary, performing the duties of the office in a most courteous, acceptable and business-like manner to all concerned.

NEW REMEDIES.

BY CHARLES ADRIEN JULIAN, M.D., Thomasville, N. C.

Read before the Davidson County Medical Society December 4, 1893.

The science of medicine is progressive, and while, as a whole, it is going forward, that important branch, *Materia Medica* and Therapeutics, is making the most rapid strides. From the "Dark Ages" to the present, disease has been virtually the same; humanity has been doomed to the ravages of the same afflictions, though they differ in type; but *Materia Medica* comes out boldly and proclaims new methods, new ideas and new remedies for the relief of disease. We may understand pathology in minutiae, we may theorize and conjecture the cause of our patient's sufferings, but without the therapy we are

helpless to alleviate the pain. The French teach their pupils pathology, but therapeutics to them is a sealed book. In their clinics, to-day they make their diagnosis, and to-morrow they invite their pupils to the post-mortem to see them confirm the same. They depend upon nature for a spontaneous cure, which, I confess is best, when possible. Only to the last era can anything be said of therapeutics. The old Hippocratic ideas were followed and only unsystematic empirical remedies were used. New ideas and new discoveries in remedies had to throttle the followers of Lebert, and punch down their empiric

throats their truths before they would leave their imperfect system of treatment. Every one frowned at new ideas in therapeutics, and even when "cinchona" was discovered, they howled it down because it neither sweated, puked nor purged. Surgery owes its truly wonderful progress to the new *Materia Medica*. Astonishing results are now obtained by measures unknown to the profession but a short time ago. Wyeth says the new agents employed in the antiseptic method of treating wounds, originated within the last few years, has brought with it the greatest usefulness and protection to life. The most daring operations are now done with safety to the patient. The abdominal cavity, which had always been avoided, is now opened up by nearly all the young members of the profession, and their efforts are crowned with success; this is due, however, by the new methods of dressing and disinfecting the patient, and even the instruments; and still more wonderful it is that the existing germs in the air, flying about as devils incarnate, ready at any and all times to play havoc by alighting upon an unsuspecting subject and setting up the dread poison, can now be destroyed by the new devices for spraying the atmosphere around the bedside of the unfortunate.

The new *Materia Medica* has fortunately brought about other wonderful results: After finding out that we could use agents to destroy the germs, bacteriology looms up in the horizon and says if you will destroy my germs, I will endeavor, by the aid of the microscope, to find them; and, thanks be to the Eternal God, she is doing it. For every improvement in the other branches *Materia Medica* scores two.

Only a few years ago we had but a faint idea of the cause of disease. We knew that when a man stuck a nail in

his foot he sometimes had tetanus; but witness the change wrought by the accession of bacteriology. Then, finding out that there is the bacillus tetani, we free the wound from danger of infection by the application of antiseptic solutions and dressings, and bring the long list of mortality to a point.

The researches of Prof. Koch have proven interesting to the whole world. Whatever may be the fate of tuberculin, it is a step on the path of discovery. Gladly did we accept the lymph, and, while it did not cure every case of tuberculosis that was tottering towards the grave, it did most positively cure it in its incipency. Contributions are coming in by the hundreds to assist the physician to combat the disease, and the world is being lighted up constantly by men who have the proper regard for themselves and their fellow-man.

I do not care in this discussion to include the whole list of new remedies, but merely to give you those with which I am most familiar, nor will I consider every preparation shoved upon the market by combinations of chemists or quack physicians who spread their infamous secret remedies and treat us as "ordinary dispensing agents"; for with these we are often ignorant of the stuff that has either cured or killed our patients. We are more or less prone to use a remedy simply because some brother in the profession has tried it; but we should know more than the simple name of the article—we should study its properties, know its physiological action, and then we can apply it therapeutically.

ARISTOL.

Aristol is of a reddish brown color, and is made by the action of an aqueous solution of iodine (in iodide) of potassium upon an aqueous solution of thymol

in the presence of caustic potash. It is almost odorless, bearing only a faint aromatic smell and a pungent taste. Aristol differs from salol and iodoform by not being absorbed when dusted upon a mucous or abraded surface, and not having any cumulative effects. Aristol, in my opinion, stands at the head of the list as an antiseptic dusting powder, and is esteemed by me the greatest boon to surgical practice. As an antiseptic, disinfectant and cicatrizing, it has the highest therapeutic value. Especially do I want to call your attention to its speedy work as a cicatrizing and its magic power of preventing suppuration and bacterial growths. It is best used as a dusting powder, as it closely adheres to an abraded surface and makes an impermeable dressing. It is soluble in alcohol and ether, but not in water. According to Langgaard aristol is incompatible with all substances for which iodine has a chemical affinity. My attention was first called to this drug a little over one year ago. On the 25th of September, 1892, I was called to see the little daughter of Mr. ———, who was suffering from an extensive burn of the fourth degree. The entire skin and subcutaneous tissue of the left arm, chest, abdomen, left thigh and leg was destroyed. Of course I found my patient suffering from shock. After using the customary dressings and remedies and my patient reacting, the most intense inflammatory fever set in. Tympanitis and diarrhœa of the most dreadful type followed. When the sloughs began to separate and suppuration set in, I used every form of antiseptic dressing. But one morning, to my horror (to use plain language), I found my patient covered over the chest and in the arm-pits with maggots. I raked them off and cleansed the entire surface with 1-2000 sublimate solution and dusted with subnit. bis.

and iodoform. Being afraid that the iodoform would be absorbed and cause toxic symptoms if continued, I telegraphed for aristol, and next day dusted the entire surface liberally with it and covered with soft linen and cotton. I continued it from day to day. Healthy granulations began to spring up, and in six weeks I discharged the patient.

The strange feature in this case is, since it is well very little scarring is seen. This is due, I am sure, to the speedy cicatrizing power of the dressing. Aristol is indicated in all forms of surgical operations. Ulcers, burns, cutaneous affections, granular lids, affections of the throat, etc. It must always be applied to mucous, abraded or corroded surfaces; for it has no escharotic or corrosive power—hence no effect is obtained by applying to the skin undressed. In a case of abdominal surgery which my contemporary, Dr. Flippen and myself performed the past summer, we obtained the best possible results from this drug. This was a laparotomy, and after the operation we found we had a ruptured bladder and quantities of urine escaping into the abdominal cavity and through the abdominal section. We applied aristol to the line of incision and over the whole abdominal wall, first drying the parts with absorbent cotton; after dusting with aristol, we covered with bi. chl. gauze, and over all absorbent cotton. As aristol is only soluble in alcohol, ether and chloroform, or the ethereal and fixed oils, it does not dissolve in the exudate, and therefore we had a perfect antiseptic, fixed and impermeable dressing. Often we could keep the urine from the abdominal cavity by the constant presence of a soft catheter passed through the urethra in the bladder, our incision cicatrized to the drainage-tube, and, after withdrawal of the tube, we were astonished

at the almost magic cicatrization of the whole section and the recovery of the patient. In syphilitic patches, after thoroughly burning them with the caustic stick, a few applications of aristol will give an apparently healthy mouth. The same treatment with this remedy holds good in granular lids. In tubercular laryngitis, the use of aristol by insufflation affords amelioration, as was proven in a case in which I was very much interested.

ANTIPYRIN.

I must beg your pardon, gentlemen, for saying anything at all about this drug, for I am so thoroughly disgusted with the new antipyretics, save phenacetin, that I can barely give them a place in my list. But my disgust is due to the antipyretic action, and not to the analgesic and antispasmodic.

Antipyrin is obtained from the destructive distillation of coal tar. It is a whitish crystalline powder, and has a decided bitter taste; it paralyzes the heart when very large doses are given, but in small doses it stimulates it and raises arterial pressure. It acts as an antiseptic when applied locally. When given in fevers as an antipyretic, the temperature falls quickly, often cyanosis and chill following. It produces ringing in the ears akin to cinchonism. No confidence can be placed in the drug, no dependence upon its action, and its treachery is always to be looked for. I have given it to patients whom I was sure could take *anything*, and often, to my horror, where I had expected to reduce the pyrexia, I found it higher, for it had been preceded by chill, and I had the discomfiture of hearing that my patient had been livid. When I find a patient in that condition I am almost ready to swear by the pint of brandy that it takes to resuscitate them, that I will never give an antipyretic

dose of antipyrin again. But this drug possesses wonderful analgesic power—not being irritating, it can be used hypodermically, and the most satisfactory results are obtained by this mode of administration in neuralgia and rheumatism. It is said that in diabetes mellitus and insipidus this drug gives very good results, and in tetanus it affords prompt relief. The aching pains due to exposure to cold and dampness, are readily relieved by it, and many cases of pneumonia and bronchitis are aborted. My experience, even here, teaches me not to give it to the aged, for great prostration is produced and enfeeblement of the constitution of the patient, and much depletion is not to be thought of. During the past year I gave antipyrin in small doses in conjunction with brandy to cases of whooping-cough, and it readily allayed the spasmodic fits of coughing. It is recommended by many authorities to be given in hysteria, but I have tried it and found it wanting in value.

My conclusions concerning this drug are that, in robust patients, where there is little likelihood of producing prostration, enfeeblement and collapse, it can be given.

PHENACETIN.

Phenacetin is the acetylene product of parphenitidin (ethyl ether of the paramidophenols). It is a white crystalline powder, perfectly odorless and tasteless. It is antipyretic and analgesic, and holds the highest place in the list of the new antipyretics. It is less depressing to the heart than any of its fellows of the coal-tar group, and hence it is the safest. It increases the secretion of the urine, is eliminated by the kidneys and does not accumulate in the system. When I first began to use this drug I liked it, and I swear by it now. It comes nearer meeting the require-

ments for which it was intended than any drug outside of the Pharmacopœia. Whenever I desire an antipyretic outside of water, I give it, and give it freely. While I hold water best, phenacetin comes next.

All of us are aware of the fact that some patients object to water, and that strongly, some going so far with their objection as not to bathe in twenty years when well, and of course, when sick, they cannot suddenly change their nature. For this class of cases the scrub-bath is needed, but it cannot be given. We must do something; they stand phenacetin well. While the bath is good for some patients, it does not follow that it is good for all, as some do not react well after it, then something must be given to reduce the pyrexia; some one of the antipyretics must be administered—some way prepared to make the patient comfortable. In my humble opinion phenacetin is the best to be administered here; it is even better as an analgesic than as an antipyretic. This remedy has proven efficacious in malaria, la grippe, pneumonia, rheumatism, whooping-cough, tuberculosis, neuralgia, etc.

This drug acts nicely as a prophylactic to colds. During the late epidemic of grippe I used phenacetin to the welfare of my patients. It ameliorated the severe headaches and muscular pains—so it does in malaria.

ANTI-KAMNIA.

This is a combination of elements belonging to the coal-tar group, and is an American product. It is a white crystalline powder, odorless, and has a slightly burning taste; soluble in hot water and in diluted alcohol, but not in cold water. It acts as an antipyretic, analgesic and anodyne. The importance attached to this drug, I think, is due to

its anodyne and analgesic power, and the celerity with which it acts. As an antipyretic in fevers, it acts more slowly than antipyrin, but is not attended with as much depression of the cardiac system and cyanosis. Wherever a sedative and an analgesic together is indicated, this remedy meets the demand. In severe headaches it is the remedy *par excellence*.

SULFONAL

was first discovered by Professor E. A. Baumann, of Freiburg University; but to Professor Kast, of the same University, belongs the honor of finding out its hypnotic properties. It belongs to the disulfone group. It is a white crystalline powder, bearing no odor, and is perfectly tasteless. It is freely soluble in hot water, alcohol and ether. It is hypnotic in action, and, in my opinion, its value is indisputable, although most writers condemn this remedy because of its slow action. The reason for this objection, I infer from the small amount of literature I have upon it, is that, instead of producing sleep the night it is given, it makes the patient drowsy the day following its administration. I profited by the experience of those who had used it, and my first trial of the drug was upon a case of chronic alcoholism. Instead of giving my doses at bed-time, I directed that it be taken immediately before the supper hour, in hot water, and it invariably gave my patient sweet and refreshing sleep.

It is said by Wm. Shenck, of Easton, Pennsylvania, that, if given hypodermically in a warm solution, it is much more active. In insomnia, I have always had good results from sulfonal. In melancholia, I have tried it thoroughly, but do not get so good results as from other drugs; hence my use of this drug is simply where I desire hypnotic action. Here it meets the requirements of the

profession—unlike opium, chloral, etc., it does not create that fiendish habit and appetite, but leaves the system in fully as good, if not better, condition than before its administration. This drug has no anodyne effect.

COCAINE HYDROCHLORATE

is the alkaloid of erythroxyton coca, a small tree grown in Peru. It was introduced in 1884. It acts, when applied locally, as an anæsthetic, but it must be applied to mucous surfaces or injected hypodermically. It dilates the pupils and impairs accommodation. In large doses it produces chill, and in poisonous doses it paralyzes the heart and causes death. In one of my own cases, after I had injected a small quantity of a 4 p. c. solution into the urethra in order to cut a stricture, my patient became cyanosed and had several rigors; but I promptly restored him by immediate administration of amyl nitrite by inhalation and subsequent administration of ammonia. It is useless to say, however, that this would occur in all cases where the drug was injected into the urethra, for I believe that the bad effects seen are due more to the idiosyncrasies of the patient than to the drug itself. Cocaine can be employed in form of spray in throat troubles. In skin affections, where there is a good deal of pain and itching, cocaine can be applied with different ointments. In operation for hemorrhoids with the knife quantities can be injected into the tumors and the operation will be entirely painless and without bad results.

My contemporary called me to help operate for hemorrhoids on an old and feeble woman. The tumors were very large, painful and vascular, and even the introduction of the index-finger would nearly throw the patient into convulsions. We injected enormous quan-

ties of a 4 p. c. solution before we were enabled to operate. We did the operation without any pain and without any bad results from the drug. During the time, however, we intentionally allowed some hemorrhage, and by that means almost as soon as the tumors were extirpated the cocaine was eliminated.

The very best results are obtained by the local application through the external meatus auditorium. In cases of otitis, and where there is persistent otorrhœa, after washing out the canal with an antiseptic solution, a very few applications of cocaine will effect a complete cure by constricting the blood-vessels and allaying the inflammation.

The dental profession are now looking to cocaine as the only local remedy to use in the painless extraction of teeth. I have injected it freely into the gums, and always with the very best results. The same theory holds good here as in operation for hemorrhoids.

SALOL.

Salol is a combination of salicylic acid and phenol. It is a white crystalline powder, bearing no odor, and nearly tasteless. It acts as a local antiseptic, as an antipyretic, and has a slight analgesic power. It is absorbed very slowly, therefore, in large and frequent doses, there is danger of phenol-poisoning. It accumulates in the system, and its action must be watched.

Salol has been used with success as a dressing for burns, wounds and eruptive skin diseases. Its greatest value is due to its intestinal antiseptic power. I have derived the greatest benefit from it in typhoid fever and in the diarrhœa of children. It is said to be useful in duodenal catarrh, as it renders the bile watery.

In conclusion, let me say, while I am an earnest advocate and an enthusiastic

admirer of the new pharmacal products introduced, tried and studied by honest, intelligent and reliable authorities; still I am just as loud in my denunciations of those who are always getting up proprietary articles for the "profession only," and sending them literature to teach them how to administer their

faulty trash. "This as an attempt to block the wheels of progress to personal ends and to force a tax upon illness and suffering." I still use some of the medicines that were prescribed by our fathers. Calomel still holds its place among my bottles, nor have I thrown away the much abused lancet.

Clinical Lecture.

CATARACT CASES AND OPERATIONS—PLASTIC OPERATION ON EYELID—KERATITIS IN DIFFERENT PHASES.

AY JOSEPH A. WHITE, A.M., M.D., Professor of Ophthalmology.

(Delivered, October 19, 1893, before the Class of the College of Physicians and Surgeons, Richmond, Va.)

To-day I will have the pleasure of exhibiting and explaining to you quite a number of interesting cases. The amount of material that is daily brought to the clinic of the Richmond Eye, Ear, Throat and Nose Infirmary, presents an "*embarras de richesse*," so that the difficulty is to decide which will be the most suitable for your instruction.

To-day, for example, we have here before us several cases of *cataract* at different ages—we have anterior polar and zonular cataract, cortical cataract in a young man, and two cases of senile cataract, one case operated on October 7th before the class—the other, a new case, to be operated on to-day. We have a case of *cancer of the eyelid* (epithelioma), upon which I performed a plastic operation one week ago, to make a new eyelid, and also a series of *corneal troubles*, which will exhibit to you nearly every disease of the cornea in a different individual.

CATARACT OPERATIONS.

I have already explained to you what cataract is. Most of the cases that you have seen were of senile cataract. You have seen extraction with and without iridectomy; you have seen the capsule opened peripherally and centrally with the cystotome; and you have also seen the anterior capsule removed with the toothed forceps.

This case before you, which was operated upon twelve days ago, has had a beautiful result. You will recollect that the operation was a labored one—the cataract was hypermature, and the remnants of cortex adhered so closely to the anterior capsule that I removed it with the toothed forceps, after the extraction of the nucleus, in order to get a clear pupil. You see now the result—the wound has healed nicely, the eye is almost free from injection and the pupil is clear.

It was a case where I anticipated, as

I told you at the time, more or less complications afterwards, certainly iritis; but no trouble has followed. It is sometimes a strange commentary upon our operations that the smoothest and best performed ones may be attended by all kinds of unexpected and unpleasant complications, whereas a laborious and tedious operation, attended with trouble and accident at the time of its performance, may go on to complete recovery, without a single disturbance.

As a rule, however, cataract operations, with proper antiseptic precautions before, during and after the operation, are rarely followed by trouble. As you were told at the time, all the instruments were thoroughly sterilized before the operation; the patient was made to wash the hands and face, and the parts about the eye and conjunctival sac were sterilized with a solution of bichloride of mercury, 1 to 2000. The instruments are dipped in this solution, and it is occasionally dropped into the eye during the operation. Of course it goes without saying that the surgeon's and assistant's hands must be thoroughly cleaned and sterilized, as well as the instruments.

The operated eye is first covered with a thin pad of absorbent cotton, soaked in the solution of bichloride just mentioned, and over this the orbit filled up with cotton and held in place by strips of adhesive plaster. The other eye is usually sealed with a small strip of isin-glass plaster.

I have been criticised by some of my friends, who are ophthalmic surgeons, for using bichloride of mercury in this way, as they claim that I am exposing the patient's eye to considerable irritation, and if any of this solution should perchance enter the anterior chamber, I would have iritis following the irritation thus set up. In several hundred opera-

tions on the eye, where I have had the anterior chamber open, I have used this solution as just described, and I am satisfied it has frequently entered the chamber, because I dip every instrument that I put into the eye into it before I use it, and in several hundred operations I have yet to see the first one where any inflammatory trouble resulted. I have seen smarting, burning and discomfort for several hours following the operation, but I have not seen any inflammatory result.

The other eye of this patient, whilst practically blind, is not yet ripe enough for an operation, and I am not one of those surgeons who extract unripe cataracts, unless there is some grave necessity for it. I can ripen this cataract by the method which I presented to the Ophthalmic Section of the American Medical Association two years ago, and which has been very successful in my hands, but there is no necessity for it in this case, and he is anxious to leave the Hospital and go back to his work, with the eye that has already been restored to sight.

This other case of senile cataract is over 70 years of age, and we will operate upon her to-day.

In addition to these two cases of senile cataract, we have one here, in a young man, of *cortical cataract*, where, instead of doing an extraction and laying open the anterior chamber, we will simply do a discission, which, translated into plain English, means passing a small cutting needle through the cornea, across the anterior chamber into the pupillary space, and making with it a small incision in the anterior capsule. The aqueous humor is thus brought in contact with the lens substance, and gradual absorption of the cloudy lens takes place.

In performing this operation it is well¹

to be very prudent about opening the capsule; it is better to make your incision too small the first time than too large. The worst that can happen from too small an incision is, that only partial absorption will take place, or even no absorption, because the incision closes up too soon; but an incision too large might have very disastrous consequences by exposing too much of the lens substance to contact with the aqueous humor, when sudden imbibition of the aqueous fluid could take place, the lens would swell too rapidly, and by pressure upon the iris and ciliary bodies bring about inflammation of these tissues, which complication might destroy the eye. Hence it is a good rule to follow to do rather too little than too much in such cases.

This young man has been going blind gradually for a year or more, and can assign no cause whatever for the formation of cataract. He has received no injury that he knows of, and the other eye throws no light upon the subject, as it is perfectly normal. If it exhibited any disease of the tissues at the bottom of the eye, that might be complicated by secondary cataract, we would have the etiology of this case elucidated; but as it is, we are in the dark. As far as I can find out, in every respect he is a healthy man, and has no constitutional trouble that would cause opacification of the lens.

Besides these two forms of cataract, we have another here in a child 8 or 9 years of age, who, instead of having general cataract, has a small round opacity limited to the anterior pole, known as *anterior polar cataract*. As this child shows opacities of the cornea from an old ulcerating keratitis, this opacity at the anterior pole of the lens is probably due to a perforation which allowed the lens to come in contact with the

cornea, and remain there long enough to form a slight adhesion, and have its nutrition thus impaired.

PLASTIC OPERATION.

I have here another case which I operated upon at our last clinic. You will remember I exhibited the case to the class, explained the trouble as one of *epithelioma, or skin cancer of the eyelid*, and told you it was necessary to remove about one-third of the lid and replace it by a plastic operation. I then removed the part of the lid on which the cancer had made its appearance, and filled up the gap thus made by dissecting back the skin covering the lid towards the temple, until the flap measured $1\frac{1}{2}$ to 2 inches. This was stretched into place to meet the healthy tissue on the nasal side, and held in place by a number of stitches.

The operation was done with strict antiseptic precautions and the lid dressed antiseptically. You can see that we have healing by first intention, except for the red lines made by the incision you would hardly observe that an operation had been performed. The parts are perfectly united and the lid as natural-looking as the one on the other side.

DISEASES OF THE CORNEA.

I will now proceed to show you a very interesting series of cases exhibiting different troubles of the cornea:

1. We have a case of phlyctenular keratitis.
2. Also a case of phlyctenular keratitis which in one eye resulted in perforation of the cornea and secondary trouble, which necessitated the removal of the eye.
3. A case of opacities of the cornea from old phlyctenular trouble.
4. A case of recent ulcer of the cornea.

5. A case of old ulceration, with recurrence.
6. A case of ulceration of the cornea above and below, resulting in perforation of both ulcers, with adhesion of the iris to the cornea at the points of perforation, deforming the pupil.
7. A case of superficial vascular keratitis.
8. A case of interstitial keratitis.
9. A case of descemetitis, or keratitis punctata.

Here we have a series of cases beautifully exemplifying pathological changes in different layers of the cornea. As you have already been told, the cornea is composed of three layers proper, the anterior elastic lamina, a homogenous membrane; the corneal tissue proper, or stroma, composed of connective tissue arranged as lamellæ, with open spaces (lymph spaces connected by lymph channels containing cells), and Descemet's membrane, or the posterior elastic lamina. In front of the anterior elastic lamina we have a layer of epithelial cells, the continuation of the conjunctiva over the cornea, and inside the posterior elastic lamina another layer of epithelial cells known as the *endothelium*.

Now, you know that the special attribute of the cornea is its transparency, and its surface seems to be brightly polished. Any pathological alteration in the cornea will interfere with its polish, or its transparency, or its curvature.

In all the cases before us there has been interference with its polish and transparency, and in some of them the curvature is altered, consequently, in examining the cornea for any defect, look closely to these three points. The best way of illuminating the cornea for such an examination is by what is known as *oblique illumination*, i. e., by condensing the light from a candle, lamp, gas-jet,

electric light, or sun light, with the lens upon the cornea from the right or left side, according as it is the right or left eye to be inspected. For a more accurate determination of its condition, whilst the light is being thrown upon the cornea a magnifying lens might be used in front to enlarge the picture and detect slighter blemishes.

All the forms of trouble that we have here on exhibition can be classed under the generic term of *keratitis* or inflammation of the cornea. The cornea being a non-vascular tissue, there being no blood-vessels in its substance (as otherwise it would not be transparent), its nutrition being derived from the contiguous vessels, the blood plasma of which passes into the lymph channels of the cornea, inflammation here presents a somewhat different picture from the inflammatory aspect elsewhere; still the same process takes place. Inflammation of the cornea is always accompanied by an infiltration with more or less exudation, which may go on to absorption or suppuration. Consequently we have non-suppurative and suppurative inflammation.

Cases 1, 2 and 3, representing phlyctenular keratitis, are examples of both suppurative and non-suppurative keratitis. Case 1, in the acute stage of phlyctenular trouble, can be denominated a non-suppurative form. Case 2 is one where the phlyctenular trouble continued on to the suppurative stage, resulting in perforation and destruction of the eye. Case 3 exhibits opacities resulting from the healing of the phlyctenulæ, which certainly went deeper than the surface, or they would not have left these opacities of the cornea. What the extent of the process in this case was I am unable to say. Cases 4, 5 and 6 belong to the suppurative division of keratitis, cases 7, 8 and 9 to the non-

suppurative division. We may divide suppurative keratitis into ulcer and abscess of the cornea, although abscess almost invariably ends in ulceration. Non-suppurative keratitis may be divided into phlyctenular keratitis, vascular keratitis, parenchymatous or interstitial keratitis, and descemetitis, which might be called posterior keratitis or keratitis profunda.

It is very important to diagnosticate at the beginning of corneal diseases, whether you are dealing with suppurative or non-suppurative keratitis, because both ulcer and abscess of the cornea may go on to very rapid destruction of the eye, whereas non-suppurative keratitis presents no immediate danger. The danger being in the complications that may arise from the involvement of neighboring tissues or from improper treatment.

One of these troubles before you—*phlyctenular keratitis*, or keratitis lymphatica, as it is called by some, can belong to either variety, because, whilst usually it is classed under the head of non-suppurative keratitis, the phlyctens can, under certain circumstances, take on the character of deep ulceration, resulting in perforation. This, however, is rare, and it is, taken altogether, probably the commonest of all corneal troubles. It is peculiarly a disease of childhood. At the same time, however, we find it almost up to middle life decreasing in frequency, according to age. It is more common among negroes between 15 and 30 than among white people.

Very few of you will be in practice any time before seeing cases of this disease. It develops in the badly nourished; in those whose nutrition is defective, not only the poor, with insufficient or poor food and bad hygienic surroundings, but among those who have

every luxury, and as a result of that very luxury have impaired their nutrition from over or improper feeding.

The case before you is a typical one. You will observe that this child keeps its head down and its eyes closed, and seems to be afraid of the light. If you attempt to open the eye for an examination, a flow of hot, scalding tears will follow the effort. The lids are reddened and sore by the constant flow of the watery secretion from the eye—the child looks pale. There is evident lack of proper nutrition in this case. If you will examine the eye you will find that this trouble is characterized by a sort of a vesicular eruption, sometimes accompanied by a herpetic eruption on the skin. Generally this eruption makes its appearance at the edge of the cornea, at the sclero-corneal junction. There may be one, two, or half a dozen of these little vesicles, and there is more or less injection of the conjunctiva in the vicinity of each one. As long as they are confined to the edge of the cornea in this way, the subjective symptoms, especially the intolerance of light, are not so pronounced, but when they make their appearance on the cornea itself the symptoms are intensified.

The phlyctens, as these little vesicles are called, may disappear very promptly under treatment, and then in a short time make their appearance again. The disease is characterized by repeated relapses, and sometimes proves very intractable to all treatment. A point I wish to make in connection with this trouble is, that it is constantly associated with a species of nasal catarrh; the children have what is known as the snuffles; but I am satisfied from my experience that there is a causative relationship between the two troubles, and that the eye trouble is dependent upon the nasal trouble.

A very large majority of the cases have what is known as *adenoid tissue* at the vault of the pharynx, which is the primary cause of both the catarrh and the keratitis. Many cases that prove perfectly intractable to treatment recover promptly when the adenoids are removed. Whether they act directly as the local cause, producing both the nasal discharge and the eye trouble by direct continuity along the nasal duct, or whether they produce the corneal trouble reflexly, or whether they act indirectly in keeping up the poor nutrition by interfering with proper respiration, are questions for consideration. In all probability they act in all three ways. The fact alone stands that their removal is followed by a rapid cure of the trouble. The treatment is to build up the general health by tonics, proper food and plenty of outdoor exercise; remove the nasal obstruction, and to use

locally either calomel dusted into the eye, or yellow oxide of mercury in a salve, one to two grains to the drachm of vaseline. Hot fomentations do good in some cases, in others cold applications are preferred. Both stimulate the circulation by producing contraction of the vessels and improve locally the nutrition. Where the intolerance of light is very great, I have found the use of a solution of pilocarpine, to contract the pupil, of valuable assistance.

In making an examination, which is sometimes very difficult on account of the intolerance of light and the struggles of the child, you will find cocaine a great help. Most of your books suggest the use of atropia, but I find I get along very well without it, and the dilatation of the pupil only increases the intolerance of light.

Concluded in next number.

Selected Papers.

A PERSONAL EXPERIENCE WITH SMALL-POX.

BY H. WARREN WHITE, M.D.

Thirteen years ago, amidst the pleasantest memories of my life, there happened an event which, in comparison, was like a horrible nightmare.

After graduation in June, 1880, I had the good fortune to spend a year abroad. I had enjoyed immensely the sights and sounds of Berlin, Dresden and Vienna. I had been up the Rhine and down the Danube, as I had never expected to do. My dreams of European travel had become happy realities; and at last I had spent some months in Paris—the most

enjoyable experience of them all. Here I had applied myself to medical studies more thoroughly than elsewhere. I had taken courses and clinics with Jaccoud, Charcot, Fournier, Parrot and Latteux. The remembrance of those days is delightful. I enjoyed and profited much during that winter of 1880-'81. But amidst that success and happiness I was to have a Waterloo indeed!

During the last week in February, while making a hospital visit in a children's hospital with Professor Parrot, I

remember for the first time in my experience seeing three or four cases of variola that for some reason had been isolated and cared for in a distant wing of the hospital. It was nearly noon at the end of a long visit. I had only a roll and a bowl of chocolate for breakfast those mornings, and was already feeling the need of my breakfast with a fork, as they call it. Before entering these apartments Parrot turned to the 15 or 20 students and asked us if we were vaccinated, for if we were not, he would not advise us to continue the visit. Three or four turned back, but I went in with the others, for it occurred to me I had no need to fear this contagion. I had been successfully vaccinated when a baby and again when about fifteen years old; and an attempt at revaccination when in the last year in the medical school had been unsuccessful. I considered myself to have immunity from the disease, although this last time referred to I was vaccinated by a fellow-student with virus which I have since suspected was inert.

The cases under Parrot's care were all children; his prognosis was very grave. Their appearance was sickening and the stench-laden atmosphere I had good reason to remember again in about two weeks. This peculiar odor, once thoroughly appreciated, I believe can never be forgotten. It is like nothing else.

This exposure to variola was a positive one, occurring but once and lasting not over fifteen minutes. I handled neither patient nor anything in the room, but simply inhaled this heavily-charged atmosphere while tired and in a hungry condition. This was the first part of the last week in February. My medical course ended with the month of February; and so, promptly on March 1st, I left Paris at 7 a. m., and ate dinner at the Bedford Hotel, London, at 6:30

p. m. of the same day. I felt particularly well, and, while crossing the English Channel, I was not in the least seasick, although the passage that day was more than ordinarily rough.

I came to London on Tuesday, settled quickly in my new quarters, arranged to attend a surgical clinic of Lister's, and Friday made my first visit with him at King's College Hospital. On Saturday I felt unusually tired and weak, and Saturday night was in alternate fever, sweats and chills. It was about ten days now since my exposure which occasion had wholly passed from my mind. Sunday, the 6th., was quite sick; a miserable-feeling throat; sore and lame all over; something like an approaching tonsillitis, to which I had ever been very liable. Hoping to improve by going out, I rode to Bloomsbury Chapel. Did not enjoy my trip out—nor the sermon, although pronounced by good judges to be a most excellent one. My headache increased with dizzy, giddy sensations. Glad to get back to the hotel and stay in the rest of the day. In the afternoon I noticed an erythema on the back of my hands and wrists, which increased. Complete anorexia. Temperature $101\frac{1}{2}^{\circ}$. In bed I felt better, and, although my sleep was disturbed and uneasy, I worried through the night without calling for help.

Monday morning I was much worse; could not possibly suffer more backache and headache; tried to sit up; vomited. Temperature 104° . Erythema on hands and face, chest and abdomen now very very marked. Called the landlord, and he, frightened at my condition, called his physician, Dr. Hall. In a careful, deliberate fashion he diagnosed scarlet fever as the trouble we had to deal with. He called my attention to the fact that a hotel was no place to be sick

in (I should have known better, of course). Said I must go at once to the London Fever Hospital; that it would take all day to get an ambulance, and that the law forbade using a public cab.

It was "only a mile away," and I must walk! Somehow—I never remembered just how—I hastily packed and locked my luggage, carelessly dressed, and walked (with Dr. Hall's help) through the streets to the hospital. He dropped me at the door, and I dropped after I got inside. Was given a private room and special nurse, in honor of my youth and profession. Temperature after entrance 105°. Dr. Smith, of the staff, diagnosed scarlet fever. The fact that I had never had it and that it was very prevalent just then in London, made it seem quite likely. Although variola later became very common in the city, just yet it had not become epidemic.

Tuesday. Still sore-throat, headache and high fever. The rash did not act typically, and some doubts were expressed as to its being scarlet fever. It had faded instead of increasing. Some one suggested variola. That day I remember how aggravating and unnecessary the noises of a hospital seemed to me. People talked incessantly; dishes rattled; doors slammed; ward trucks squeaked excruciatingly, and the wheels rattled miserably. I vowed, if I got well, I'd buy some lubricating oil and rubber tires, and present them to this hospital. I would tell them how much a poor devil suffered from noises which could be prevented.

Wednesday morning, before light, I detected about myself that odor which was unmistakable. I recognized the flavor of two weeks ago. I could not wait for daylight. I called the nurse and told her I had no doubt now what I had, and to inform the house-officer at once that I had small-pox. She hastened

away without a word. I put my hand to my face and felt what seemed like a lot of bird-shot just under the skin of the forehead along the edge of my hair. The house-officer came at once and confirmed my diagnosis. You can scarcely guess what chagrin, confusion and distress I caused in that; and, to make matters worse, they had to wait all day long till evening for the small-pox ambulance to come for me. They would have got rid of me before, but they did not dare to use their own ambulance. I remember that ride very well. Their small-pox ambulance was constructed something like an American hearse. The patient was wrapped in blankets, shoved in, and the doors shut. It was like attending your own funeral. Lying in there and easily looking out the glass sides at the happy, healthy people walking the sidewalks, made me feel extremely miserable and unfortunate.

Thus I entered Highgate Small-Pox Hospital on the evening of Wednesday, March 9th, an unwelcome encumbrance. The first night there, I believe, was the most terrible in my whole experience. I arrived late, and was put into the centre of a long ward with 20 or 30 others. A howling snow-storm outside. There were large ventilators over each bed (like those in dissecting-rooms), and they were so wide open I felt the snow sift in upon my face during the night. The patient in the bed to my right was in a howling delirium all night long, but quieted down and died about daylight. Another died across the room, three beds away, on my left. There were no screens to put around them. There were only a few private rooms, and those were occupied by women. They changed my bed to the end of the room next day, where, by turning to the wall, I could avoid seeing the misery around me. There was no attention worth

calling nursing, as good nurses would not accept such a position. The nourishment dealt around was thick slabs of bread and butter and a bowl of tea. My mouth and throat were very sore, and I could not eat anything like this. After much begging I got some milk. For three days after that I had a wild delirium, more, I expect, from the excitement and shock of my experience than from the intensity of the disease, though the attending doctor said I was very sick and was part of the time in a camisole. My face was swollen and painful, and my fever ran high. I would not stay in bed. Was continually trying to extinguish imaginary fires, rescuing myself and bedding from the blaze. Once they found me with a handkerchief tied tightly around my neck, and I asked for a short stick to thrust under it and twist it to strangle myself. All such fine plans were prevented, and full doses of chloral and bromide taken after much persuasion. Some dim recollection of all this I have still—the most horrible remembrance of my life.

I saw myself for the first time on the following Monday (clothed in my right mind). Nobody would recognize me. It appeared as if my face had been burnt with steam or powder. I would not know myself. I feebly asked the doctor if this was a case of varioloid. I remember how he laughed. I tried to laugh, but it hurt me too much. I looked at my chart, which he showed me—“Discrete variola vera.” This, I felt, had been the true article sure enough. There was a fee of four guineas, I found out, due the hospital for all this elegant entertainment; and I got the landlord to advance the same on the strength of my luggage still in his possession.

Tuesday, Dr. Smith, of the London Fever Hospital, sent me some oranges, grapes and flowers; but my mouth was

too sore to eat the fruit, and somebody stole my flowers.

I went into the convalescent ward on March 16th. My face, itching unbearably, was relieved on application of carbolized vaseline. My companions here were very dull and stupid. The weather outside was sto my most of the time, the epidemic increased, and the hospital was crowded to the doors. Diet: boiled mutton and ale, t. i. d. Later I used to make the rounds with Dr. Goude (as my strength improved). I remember one remarkable case of hæmorrhagic small pox in an old man. This man entered strongly pitted. It was his third attack. His skin was purplish. He was bleeding from every orifice of his body—mouth, nose, ears, rectum and stomach—and very conscious of his serious condition. He never broke out fairly before he bled to death. Deaths occurred daily. The mortality of confluent cases was nearly 50 p. c.; of the discrete cases, 6 p. c. It was very dull and lonesome to me; and it was too sickening for me to have much interest in it all, though the doctor did all he could for me. The horror and distress of a severe confluent case must be seen to be appreciated—the phlegmonous face, swollen beyond possibility of recognition, swollen so that the eyes cannot be opened; the tongue protruding, so much swollen it cannot be held in the mouth; the fœtid breath, drawn with great difficulty and much noise. Happily such patients are comatose, muttering or groaning in a typhoid-like condition, finally getting exhausted and giving up the struggle, or wonderfully living on, day after day, without nourishment, and finally recovering (in some cases most miraculously), but carrying the scars of the terrible struggle as long as they live. I was particularly sorry to lose the night nurse, who

had been very kind to me. She was found to drink the brandy ordered for the patients. I knew before that she had been drinking by the odor; but I was not surprised, considering what a place that was to work in. There was often in the night a confusion of howls from the long ward. Poor lunatics! I could scarcely believe that a few days before I was as delirious and making as much confusion as any of them. Many hundred patients passed through that course and graduated into the convalescent wards while the epidemic raged; but many others went the way to the dead-house.

On March 22d I took dinner once more like a civilized being, this being down-stairs with Dr. Goude, in his private apartments. I told him how poorly his patients were being nursed. He seemed to be much surprised and shocked to hear of it. I never knew if it was changed, or if it could have been; and in writing this I fully realize how much easier it is to point out defects than to remedy them.

On March 23d, after a thorough carbolic bath and baking of my clothes (letters sent out were thus baked), I was given my liberty once more. Although too weak to walk then, in about a week I was thoroughly convalescent. Always anæmic, I was extremely so for a month afterwards; my breath shortened and pulse rapid on the least exertion. I lost ten pounds. The only special treatment I received was sedatives

for nervous symptoms; cold, wet cloths to the face and carbolic ointments later; ice for the throat, and stimulants freely during convalescence.

I went later to the London Fever Hospital, and gave them £1 1s. for their trouble (I hope they oiled the truck-wheels), and paid £3 8s. 6d. to the landlord to cleanse my rooms at the Bedford and fumigate them properly—a nice little sum of between eight and nine guineas in all for my rather unusual clinical experience.

I could not help learning a few things about variola during this vivid experience which may be interesting just now:

(1) The feeble protection of old vaccinations.

(2) Importance of successful re-vaccination.

(3) That a previous attack or vaccination give about equal protection.

(4) "Varioloid" is not only a foolish, but a dangerous, superstition.

(5) The intense virulence of variola.

(6) The long incubation.

(7) Difficulty of diagnosis.

(8) Rapidity of the disease and its stages.

(9) The very general eruption on inner mucous and serous membranes, alimentary tract from mouth to anus, trachea, vagina, conjunctiva.

(10) Horror of the disease because of the isolation necessary, the pain and odor and delirium, and the poor nursing generally.—*Boston Med. and Surg. Jour.*

SMALL-POX IN CHARITY HOSPITAL.—Three patients in the Charity Hospital, on Blackwell's Island, developed small-pox January 16th. All were taken to Riverside Hospital. They caught the disease from a man named Schmidt, who died in the Charity Hospital last week. Schmidt's body was taken to Bellevue for dissection, and it was not until then

that the discovery was made that he had died of small-pox. A diagnosis was not made at the Charity Hospital. The patient was in the hospital at least a week, and exposed many persons to the disease. The attendants and the patients in the ward in which Schmidt was have been vaccinated and the ward fumigated.—*Medical Record.*

IS PYOSALPINX SUSCEPTIBLE OF SPONTANEOUS CURE?

BY ANDREW W. CURRIER, M.D., New York.

This is a question which many a gynæcologist has repeatedly asked himself. Martin has reported more than 300 cases in which recovery is said to have taken place without operation. Lusk states that he has seen so many recover as to have reached the conclusion that if the operation is postponed, it may not be necessary to do it at all. Murray, Polk and others have reported series of cases in which drainage was followed, apparently, by cure. Such testimony is distressing to those with whom the *furor operativus* is ardent, and it is also misleading, for from it no general deduction can be drawn, unless it be that some men are prone to operate too hastily, which all the world knows, therefore it is an unimportant deduction. We are yet far, as it seems to me, from that precision in diagnosis which enables one to say unerringly that pyosalpinx is or is not present; that is usually a minor consideration, for, given the presence of a tumor in the pelvis, which it is usually possible to determine, and the experience of severe or serious symptoms referable with extreme probability to the said tumor, our judgment as to its species may properly be deferred until we can see and handle it. We can guess at its variety in advance, if we choose, and that is a privilege of which advantage is usually taken. Pyosalpinx is a condition which so seldom occurs uncomplicated, it is often associated with ovarian abscess, or with pelvic abscess or inflammation consequential to disease of the uterus or its appendages, that any method of treatment which offers a cure by any means short of those which are radical and surgical must include within its limits

only a small proportion of the existing cases of the disease. If this is true, it must also be true, *a fortiori*, concerning spontaneous recovery from the disease. My own experience has led me to the belief that the statements which in any way convey the impression that the disease is one which, if left alone and allowed to run its course, will result in a spontaneous cure, or is one which is readily curable by electricity, drainage, etc., do not accord with the facts. I admit that exceptions are not very infrequent, and of these I shall speak subsequently. We must not forget that we may sometimes be deceived by the cessation of symptoms, and hug the delusion that quiescence means cure. Naturally the question arises, then, What constitutes a cure of the disease pyosalpinx? Certainly, if the diseased organ is removed, the pelvic exudate which is often found after operation is absorbed, and the endometritis which existed prior to the operation disappears, the disease, with its antecedents and consequences, is eradicated; but to say that it is eradicated under any other conditions is to take a good many things for granted. Before the question of cure or curability is further discussed, it would be well to consider what is implied in the term pyosalpinx. The disease has been so extensively investigated, from almost every standpoint, that there need be no uncertainty in the statements which are to be made. A better term than pyosalpinx is suppurative salpingitis. The term pyosalpinx has crept into common use, and, like many other incomplete or indefinite medical terms, cannot readily be displaced. Suppurative salpingitis, then,

is an acute or chronic inflammatory process of the Fallopian tube, with which the formation of pus is incidental. The quantity may be small, but the question of the disappearance of the pus is important, for it bears seriously upon the question at issue, namely, the question concerning the spontaneous curability of the disease. The various forms of the disease are well known and have been many times described. Säger and others have described puerperal, gonorrhœal, tubercular, syphilitic and actinomycotic varieties. There is also a variety which is distinctly traumatic; also one which Bland Sutton and others have spoken of as arising in connection with myoma, adenoma and carcinoma of the uterus, in which the new growth may also involve the tube as well as the uterus. Actinomycotic salpingitis is exceedingly rare—in fact, I know of but one recorded case, that of Zemann, which is quoted by Bland Sutton ("Surgical Diseases of the Ovaries and Fallopian Tubes," Lea, 1892, p. 278.) The post-mortem examination showed that this was a true case of suppurative salpingitis, and actinomycotic nodules were found in the tubal walls.

Syphilitic salpingitis is also rare—not suppurative salpingitis as a complication of syphilis, which is common enough, but gummatous formations within the structure of the tubes. Bouchard and Lepine, also quoted by Bland Sutton, have reported such a case.

Tubercular salpingitis does not necessarily mean tubercular peritonitis in which the distribution of tubercle extends to the peritoneum, covering the tubes, although Sutton thinks tubercular peritonitis usually implies a precedent tubercular salpingitis, the tubercular material having escaped through the abdominal end of the tube and infected the peritoneum. Tubercular salpingitis

presents the common characteristics of suppurative salpingitis, excepting, of course, that there is an accumulation of caseous material instead of pus within the tube, and that the presence of bacilli tuberculosis is demonstrable; or the accumulation within the tube may not suggest anything different from an ordinary case of suppurative salpingitis. The mucous membrane of the tube, again, according to Sutton, is destroyed by infiltration with inflammatory products or by ulceration.

In an ordinary experience one does not meet with either of the three varieties of suppurative salpingitis just mentioned, but the gonorrhœal and puerperal varieties are common enough. The gonorrhœal variety is, I believe, the most frequent of all. It is preceded inevitably by gonorrhœa affecting the uterus, repeated reinfection being possible, while in many cases the virus deposited at a single infection is reproduced indefinitely. Valuable as the bacteriological investigations in this field have been, they are confusing and inharmonious, and compel us to rely largely upon clinical phenomena. One group of bacteriologists, of whom Bumm is representative, asserts that the gonococcus, the infectious germ of gonorrhœa, confines its activity to surfaces—that is, it does not penetrate tissues, and becomes encapsulated when it reaches the peritoneum, and, therefore, harmless. Another group, led by Wertheim, affirms that the gonococcus penetrates tissues, and that the disease gonorrhœa is not superficial in its action. Both of these writers speak with authority. What is the clinician to believe?

It seems to be a fact that youth, with its rapid tissue changes and active processes, is the favorable period for the development of infectious disease. We see it illustrated in the great preponder-

ance of the exanthematous disease during the period of childhood. I believe that the law holds good for gonorrhœa as well, and, consequently, for gonorrhœal salpingitis. I have never known of a case of gonorrhœal salpingitis contracted subsequent to the menopause; and if a woman has vitality sufficient to withstand the ravages of the disease until middle life, with its atrophic changes, is reached, she may outgrow it. Bland Sutton narrates such a case in a prostitute who died at the age of 44. She had followed a career of vice for many years, had suffered a long time with disease of the uterus and appendages, and post-mortem examination revealed a shrivelled and atrophied uterus, and tubes reduced to mere strings of connective tissue. But I believe that cases of endurance like this are extremely rare. It may therefore be safe to state that the period during which gonorrhœal salpingitis is acquired is prior to the 35th year of life. There are two classes of women in whom the great majority of cases of this disease are found—prostitutes and newly-wedded women whose husbands are sufferers from gonorrhœa at the time of marriage. The frequency of the disease in prostitutes was observed by Mercier as early as 1848, in connection with a large number of autopsies which he made upon women of that class. Their manner of life is such as to predispose them to this affection: their irregular habits, constant and indiscriminate intercourse, alcohol-drinking, uncleanness, all favor the development of a disease which is intensely infectious.

The other class, which is also a very large one, includes women who, prior to marriage, may have been entirely unconscious of any disease of the sexual organs. The husband may not be suf-

fering with acute gonorrhœa at the time of marriage; his attack may date back months, or even years, and he may even be quite unconscious that any trace of the disease remains; but such is its insidiousness and persistency, that he becomes unwittingly the source of infection to his wife, and in a few weeks or months she enters upon the characteristic experience of which suppurative salpingitis is one of the sequels. It was the great merit of Nüggerath to discover and announce these facts, which were received with almost universal incredulity at first, but have since been verified by many observers.

The puerperal variety of suppurative salpingitis is associated with a history of gestation either extending to term or incomplete. In by far the greater number of cases there is a history of abortion, which is regarded by so many women as a trivial affair, and such cases too often prove incurable except by the most radical procedures. It is the supposed insignificance of abortions which leads so many women to have them criminally produced, and to be grossly careless about themselves after they have been produced, from whatever cause or motive. Especially is this true with women of the working classes, whose household duties often forbid that consideration for their comfort and well-being on such occasions which those who are in more easy circumstances could consider if they would. In these cases there is usually sepsis in connection with retained products of conception, inflammation of the endometrium is excited, the process extends to the tube or tubes, and serious results may result. The same series of events may occur after labor at term, when the injury to the tissues has been severe, or the proper care during the puerperium has been wanting. Salpingitis, which is

of puerperal origin, like that which is gonorrhœal, may be of all grades of intensity and virulence, though the former variety in the average of cases offers a less hopeless prospect of cure.

Closely akin to the puerperal variety of suppurative salpingitis is the traumatic, though there are probably few cases in which the lesions of the child-bed alone—that is, unsupported by sepsis—cause this condition. The number of cases of traumatic salpingitis is probably large, and the traumatisms may be of varied character—such as the action of powerful caustics, applied to the endometrium, the unskilful or virulent instrumental treatment of the uterus and vagina, the improper use of pessaries, etc. While there has been sweeping censoriousness on the part of certain gynæcologists regarding the effect of treatment of the womb by manipulations and drugs, it is doubtless true that mischief is occasionally done by such practices; but this branch of gynæcology is not unique or exceptional in this regard.

The final variety of this disease to be described has received little consideration at the hands of most writers, but is, nevertheless, of great importance. Bland Sutton states that probably 10 p. c. of the cases of carcinoma uteri are affected also with salpingitis, and this estimate appears to be a low one. Certain it is that women who are affected with myoma, adenoma, or carcinoma of the uterus or tubes, are constantly susceptible, from the presence of these growths, to influences by which inflammation is easily excited, and, as a matter of fact, inflammation of this character frequently occurs. In all these varieties of salpingitis there is one symptom, pain, which is almost uniformly present. In the majority of cases the extension of the disease to the perito-

neum is suspected, and often verified by operation or autopsy. Probably the extension is usually direct from the mucous membrane of the tube, but the peritoneum may also be infected by the exudation of pus through the abdominal end of the tube, or through its wall. The sequence of events when this extension has taken place is a varied but very familiar one. There is plastic matter, of all degrees as to quantity and density, union of the tube to the ovary, abscesses in the latter organ, encapsulation of exuded pus around the tube and ovary, adhesion of these organs to the surrounding abdominal viscera, and the development of a tumor varying in size and relations with the varying conditions. There may be rupture of the purulent collection into the peritoneal cavity with fatal consequence, but I doubt whether such a result is as common as is generally believed on account of the tolerance which the peritoneum manifests for virulent material, and the readiness with which such material is absorbed or encapsulated. Certainly the number of women who die suddenly from rupture of an abscess in the peritoneal cavity is insignificant compared with the number of those who drag out a weary existence as the result of the pain and the poison of the disease. A most important fact, which has already been alluded to, is the impossibility of exact diagnosis as to the condition of affairs within the peritoneal cavity in very many cases, except by actual inspection or manipulation. A discharge of pus from the uterus by no means signifies necessarily a suppurative salpingitis. A diagnosis based upon such premises and followed by relief of the symptoms has, doubtless, led to not a few reports of cures of suppurative salpingitis, evidence as to the actual existence of the disease being entirely

inconclusive. The course which the disease may take, with its accompanying phenomena, suggests the following classification :

1. A class in which the symptoms are mild, the resisting power of the individual good, and the infectious elements not numerous or intensely virulent. (Okintchitz has shown that the prognosis in the septic diseases depends directly upon the number of infectious germs.) The condition is frequently described and referred to as one of acute catarrhal inflammation, and such a description is a fairly good one. Cases in this class are seldom of gonorrhœal origin. They are frequently due to traumatism, from instruments, caustic drugs, severe childbirth, and from the irritating presence of new growths in the uterus or the tubes themselves. It is thought that many cases of hydro-salpinx are of this character, the pus having undergone transformation. The tumor in this class of cases is usually small and may disappear entirely, leaving no trace of disturbance behind, the inflammation subsiding as the same variety of inflammation in mucous membranes elsewhere subsides. It is this form of purulent salpingitis in which spontaneous cure occurs, perhaps before there is a chance to operate; it is also this form in which drainage and depletion by means of the intra-uterine tampon yield their best results, because there are no peritoneal adhesions, the tubes are not dislocated, and the mechanical conditions are more favorable to an outflow of the tubal contents than in any other form of tubal tumor.

2. In the second class of cases the conditions are more complicated. Puerperal trouble in some form is often at the bottom of the disease, and not a few cases are attributable to tuberculosis. The testimony upon the latter

point has increased materially within the past few years. The tumor may become as large as a sausage, or even larger, and septic phenomena are not wanting. Peritonitis and adhesive inflammation are always incidental, and the tubes may be dislocated in any direction and adhere to any of the pelvic viscera. If the adhesions bind the tubes down very firmly, the tumor may be reduced in size, and atrophic changes may take place with the formation of much connective tissue, which will ultimately change the character of the disease. The pain in such cases is usually severe and almost continuous, and if the patient has sufficient vitality to endure the strain, a spontaneous cure may ultimately, after years of suffering, take place. Such a result is, however, a very rare one, and the tubes in such cases are never restored *ad integrum*. In other cases the pressure of the pus is sufficient to rupture the tube, sometimes with ensuing fatal peritonitis, sometimes with encapsulation of the pus in one or more abscesses contiguous to the tube. These abscesses may be quiescent, or they may perforate the rectum, vagina, vulva, or ischio-rectal region.

3. The third class of these cases includes those which are principally of gonorrhœal origin. The pain is severe, there are frequent attacks of peritonitis, pus is constantly discharged from the uterus and frequently infiltrates the uterine cornua. Peritoneal adhesions are abundant, the ovaries become infected, abscesses are developed within and around the ovaries and tubes, and all the pelvic viscera become matted together in a firm mass. Rupture with fatal peritonitis is an occasional occurrence, but more frequently the patient is worn out with pain and sepsis. This is the variety which is so frequently seen in prostitutes and newly-married

women who have been infected by their husbands. Spontaneous recovery in such cases is the rarest of exceptions; the longer the disease continues the more hopeless does it become. It has been my privilege to follow quite a number of such cases for periods extending through several years, and I can recall but one in which spontaneous cure took place. (In this case the patient was first seen in 1888, and was then 40 years of age. She had four miscarriages at the third month, and no full-term pregnancies. She had a large and hard mass in Douglas's pouch, which nearly filled it, and a discharge of pus from the uterus. There was almost constant pain for a long time. After two years of treatment, I lost sight of her. Between two and three years afterwards she came to me again, in very good condition, and I could discover no trace of any tumor in the pelvis, the uterus was movable, and the trouble from which she had so long suffered had entirely disappeared. My diagnosis had been purulent salpingitis)

4. In a fourth class of cases the inflammatory process is a very slow one, involving principally the interstitial tissue of the tube. The quantity of pus secreted is small, the increase of connective tissue considerable, peritonitis with pain troublesome, but usually localized; adhesions to surrounding tissues are firm, and abundant in some cases and insignificant in others. The process may be malignant in itself, or associated with malignant disease of the uterus or ovary. In some cases hypertrophy of the muscular tissue is the principal phenomenon, as in certain cases of tubal pregnancy (in which cases, of course, the development of the process is not slow, but rapid); in others there is a process analogous to, if not identical

with, the cirrhotic process, to which most of the organs of the body are susceptible. The condition is not a common one, and I do not recall any studies which have been made exclusively upon it. Of course the condition has been mentioned by many writers, and all gynecologists of considerable experience have seen illustrations of it. If a woman with such a diseased organ reaches the menopause, spontaneous cure may result with the quiescence of the pelvic circulation and the atrophic changes of that period. The peculiarities of the pelvic circulation, with its recurring ebbs and floods, prevent the contraction and atrophy which the cirrhotic process entails in other organs after a shorter period of time.

It will be evident from the foregoing that, while spontaneous cure is not an impossibility with any of the forms of purulent salpingitis, it is not a result to be looked for with confidence in any cases except those of acute catarrhal inflammation. Doubtless the most favorable conditions for spontaneous cure (i. e., cure without surgical interference) are present with those women who take to their beds early in the history of the disease, and receive the most patient and careful attention, especially in the judicious application of heat to the pelvis. Such cases were often treated under the old regime as cases of cellulitis, and everybody knows how protracted the cases were. The more rational treatment by abdominal section, if it exposes the woman to greater risks, usually gives better prospects of complete cure. For the great majority of the chronic cases I believe that a cure is impossible, except by the most radical surgical measures; but that feature of the subject is not now to be discussed.—*International Medical Magazine.*

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ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

SOCIETY MATTERS.

In the first place, is it worth while to be a member of the State Society? is it worth a man's while to absent himself from his practice for four or five days each year to attend the meetings? does it pay him to do this besides spending the money necessary for the trip? To all these questions we answer most emphatically, yes. It is worth to any physician many times more than it costs him. Not only in the benefit he derives from respiteing his tired mind and body from the daily routine of a laborious practice, from the making of firm and lasting friendships among his professional brethren, from the new ideas he catches in the discussions upon many and varied subjects, or from the Society honors to which he may attain; but the time has come when the very fact of being a member of the State Society is a matter of vast importance to the

reputable physicians of our State, for the laity have accustomed themselves to judge, in some degree, a physician's standing by that fact. Often have we had the question asked us concerning different physicians: "Is he a member of the State Society?" And when answered in the negative it was always apparent that, in the interrogator's opinion, that physician did not occupy quite so high a place, even when our reply was guarded by the assertion that there were many excellent physicians in the State who had not identified themselves with the Society. They feel, and in great measure rightly, that a physician who is not a member of the Society does not show a proper interest in his profession, or sufficient zeal in keeping abreast of the advances that are so rapidly developing.

We would be glad to see every reputable regular physician in the State a

member of the Society, and all working for the upbuilding of legitimate medicine and the overthrowing of quackery and incompetency in all its phases. Only through organization can anything be accomplished. To the organized efforts of the Society are due our excellent practice laws and health laws, and only by continued and increased organization can these laws be made effective. It is an honor for a physician to be a member of the Society that has accomplished these things, that has developed order out of chaos, that has brought light out of darkness. Members should be proud of their membership and take good heed that they do not lose it by carelessness in the payment of their dues. A member who is in arrears two years and fails to pay after due notice, is debarred from receiving the Transactions, and if he allows his payments to lapse for four years, his name is dropped. This year there are no less than 66 whose names are dropped from the roll, and 93 others who are not entitled to receive the Transactions. We are confident that the vast majority of these *one hundred and fifty-nine* delinquents are due to carelessness and procrastination. It is just that members should be required to pay the small annual assessment of \$2.00, if they expect to retain their voice in the affairs of the Society, and we trust that those who fail to receive the Transactions this year will let that fact remind them to send their back dues to the Treasurer, Dr. M. P. Perry, Macon, N. C., at once. Those whose names have been dropped should take the opportunity of the next meeting to seek reinstatement.

The new Constitution empowers each chairman of a section to appoint as many as three assistants to prepare a

paper on some subject within the scope of his section, thus providing for papers in all branches, and giving the chairman the opportunity of confining himself to the advances made in his section during the year. If the chairmen have not already begun their work, we would suggest that it is time they were up and doing. Let each select three of his friends whom he may consider especially qualified to write upon some definite subject, and obtain their definite promise to have a paper to be read at the next meeting of the Society. If preferred, the subject of the assistant's paper might be left to his own choice, of course confining himself to the section in which he is. And the chairmen should remember that their appointment to the position they hold is not intended only as an honor which does not require the performance of a duty, but that the Society expects each one to show his appreciation of the honor conferred upon him, by presenting a paper which shall bear evidence of careful work and investigation, and which will be worthy of publication in the Transactions of the Society.

We feel constrained to criticize the manner of appointing the chairmen of sections which seems to be followed by all the presiding officers. The idea seems to be to appoint to these offices young members, with the intent of forcing them to do some work and take an active part in the Society. This would be very well if it accomplished the object intended even in a fair proportion of the cases; but we doubt that this is so. It appears sometimes rather to keep some of these members from attending the meeting at which they are expected to read a paper. We like the rule established by the Southern Surgical

and Gynæcological Association of requiring applicants for membership to present a paper upon some subject in surgery or gynæcology with his application. While we would not advocate applying this rule to those desiring to join the Society, we do think it would raise the general standard of the reports of sections if only those were appointed as chairmen of sections who had presented some voluntary paper to the Society, thus showing their fitness for the position. This would cause those desirous of appointment to exert themselves in the preparation of their voluntary papers, and would increase the honor conferred by the appointment.

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The papers presented at the last meeting of the Society were not only more numerous, but were of a higher grade, than usual. The greater number of papers and the greater consumption of time, through the more general discussions, made it impossible to adhere to the programme, with the result of several papers being left out. Members in preparing papers should remember that the time is limited, that there are others who desire to read papers, and that the greatest benefit to be derived from a paper is often in the discussion. In preparing your paper, therefore, remember to boil it down to the greatest extent possible that will not detract from its value. It is not quantity, but quality, that gives value to a paper, and the shorter it is, to convey the ideas of the writer, the better. It is probable that the Society will be asked to pass a rule limiting the reading of papers to twenty minutes except by consent, and the discussions to five minute for each speaker, with the privilege of the floor only once upon the same subject. Read

your paper with your watch before you, and if it consumes more than twenty minutes, go over it again and try to boil it down further. In discussing a paper, do not go over the points upon which you and the author perfectly agree—that is wasting time. Formulate your remarks before rising, and then state them clearly, and, as far as possible, without repetition. It will be seldom that the ideas a member wishes to advance cannot be expressed in five minutes, and thus time will be given for others.

MEDICAL PRACTICE LAWS.

We call special attention to a paper, which appears in another department of this issue, upon the work of the fifth Board of Medical Examiners of the State. The paper is prepared by Dr. Francis Duffy, a member of the Board, and brings out clearly the condition of affairs that made necessary an act to regulate the practice of medicine. North Carolina stands to-day as the pioneer in this great step toward securing higher medical education, and at this time has been followed by a large majority of the States. Amendments have been made to her laws from time to time, until now, we are safe in asserting they are superior to those of any other State. As the law stands, no one can enter upon the practice of medicine or surgery unless registered with the Clerk of the County Court, and he cannot register without *showing a license* from the Board of Examiners, which Board consists of seven members, all elected from the membership of the State Medical Society. The constitutionality of the law has been tested and favorably decided upon by the Supreme Court of the State, which also defined the meaning of the term "practice of medicine," holding that if a man offers

himself publicly as a physician he comes within the meaning of the law, and it is not necessary that he should have treated a patient.

Dr. Duffy's record of the work of the Board from 1885 to 1890 (six years) bears evidence of the great good accomplished by the law, in improving the grade of preparation of applicants for license. The great number of rejections and the high requirements by the Board caused it to be told of one institution that, if a man of doubtful ability intended practising in North Carolina, he would not be graduated, whereas one no better qualified, but destined for another State, would be. When we read in the report of Dr. Duffy that the Board was very lenient during its early sessions, we must remember that they were hewing their way through the unexplored jungle of public opinion and popular prejudice—it was necessary to feel their way with caution and give the people an opportunity of seeing the wholesomeness of what they had already done, before making another advance.

Those States which have not done so,

must, in the near future, defend their citizens from the quackery and charlatanism and ignorance that have gotten to be so rife in the land. As water flows to, and settles in, the lowest places, forming bogs unpleasant to the eye and dangerous to health, so will these fellows, who cannot find an abode in those States which require a demonstration of their fitness to deal with the lives of men, drift into those other States which have left their doors wide open to them, and will ply their nefarious practices to the discredit and detriment of those States. With strict laws in North Carolina, Tennessee, Alabama and Florida, these fellows, like pus, make towards the point of least resistance, and escape into South Carolina and Georgia. All honor to the Old North State, which was the first to move in this salutary reform which forced the medical schools to require a higher standard for their graduates; and all praise to her boards of medical examiners, who have so faithfully performed their duties and protected the lives of her people from the danger of ignorant men, who were ever ready to take advantage of their necessity and credulity.

Reviews and Book Notices.

A Practical Treatise on Materia Medica and Therapeutics. By ROBERTS BARTHOLOW, M.A., M.D., L.L.D., Professor of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia, etc., etc. Eighth Edition, Enlarged and Revised. Imperial Octavo, Cloth, Pp. 820.

The decennial revision of the Pharmacopœia made necessary an early revision

of this standard work, that it might comply with the changes adopted in the official work. Although a member of the Revision Committee that excluded from the Pharmacopœia all proprietary preparations, the author has included in this edition a number of the new preparations which are either patented or have their names trademarked. Prof. Bartholow recognizes the

great value of many of these, and the fact that they are used more or less by the entire profession, and that a work, such as this, would not be complete without some reference to them. He has omitted some that have not proved useful and others which may be substituted by some that do appear; but we confess to some surprise in finding no reference to such agents as Piperazine, Aristol, Europhen, Menthol, Exalgine, and some others. Whether the author of a work, which is intended as a textbook, is or is not thoroughly satisfied with the value of remedies which are in every-day use, and which have been found useful by the members of the profession who have tested them clinically, he should at least give his readers information in regard to them, even if it is supplemented by his adverse opinion as to their utility.

Some of the criticisms of such a distinguished authority as Professor Bartholow on certain of the newer agents will not be uninteresting; e. g., in speaking of hydrogen dioxide, to which he gives a quarter of a page, he says: "It is powerfully antiseptic, because of its destructive oxidizing action, and for this reason has been employed in diphtheria and in the specific fevers, but its utility is by no means clear. Locally, so powerful as to surpass all other agents of the antiseptic group, much good should be effected by it; but thus far its therapeutic value has proved more fanciful than real." Of phenacetin he says: "Among the more recent contributions to the antiseptic and antipyretic group, phenacetin is the most promising. . . In fevers, as an antipyretic, and as an analgesic in painful affections, it is as useful, certainly, if not more so, than any of these remedies." In discussing the comparative utility of ether and chloroform, he says: "*It follows from*

the above considerations that ether should be used in preference to chloroform in all cases except during labor. . . . The frequency with which fatal cases of chloroform narcosis have been reported—amounting in the aggregate now to about 500—imposes an immense responsibility on the administrator. In the present state of opinion on the subject, the use of chloroform, when ether is available, for the production of anæsthesia, can hardly be justified, especially if a fatal result follow its administration."

In noting the doses, the author has confined himself to the old system, but has appended a table of equivalent weights and measures. The work, which has so long held a high place as a textbook, and which is the first revision to appear since the issue of the Pharmacopœia, will doubtless be received with satisfaction, and very deservedly so.

Surgery. By BERN B. GALLAUDET, M.D., Demonstrator of Anatomy and Clinical Lecturer on Surgery, College of Physicians and Surgeons, New York, and CHARLES N. DIXON-JONES, M.D., Assistant Surgeon, Out-Patient Department Presbyterian Hospital, New York. Being the final volume of The Student's Quiz Series, edited by BERN B. GALLAUDET, M.D. Duodecimo, 291 pages, 149 illustrations. Cloth, \$1.75. Philadelphia, Lea Bros. & Co., 1893.

The Editor of this series of compends is to be congratulated for the general excellence that has characterized the different numbers. The volume before us is no exception, and from its thoroughness is entitled to a more modest name than "compend." The author has paid especial attention to the subject of inflammation, and, under the etiology of inflammation, to bacteriology. The work is confined to small proportion, in size, by the omission of unnecessary

prepositions and vague theories, only facts being stated. The book will serve a useful purpose in assisting graduating students in their reviews, and in bringing to the attention of practitioners many facts which they had forgotten, and others that are new.

Transactions of the American Ophthalmological Society. 29th Annual Meeting, New London, Conn., 1893.

This volume contains, besides the minutes of the proceedings, 22 papers by members of the Society. These papers have, for the most part, already appeared in the various periodicals, but put together into one collection, they constitute a volume of which the Society may well be proud. They are, in great measure, prepared from the clinical experience of the authors. It is suggestive to notice that two-thirds of the papers are from the pens of specialists of New York and Philadelphia.

The Principles and Practice of Surgery. By JOHN ASHHURST, Jr., M.D., Barton Professor of Surgery in the University of Pennsylvania, Surgeon to the Pennsylvania Hospital, Philadelphia. New (6th) edition, enlarged and thoroughly revised. In one octavo volume of 1161 pages, with 656 engravings and a colored plate. Cloth, \$6.00; leather, \$7.00. Philadelphia, Lea Brothers & Co., 1893.

Knowing the doubt with which Prof. Ashhurst regarded the claims of those who were enthusiasts upon the subject of antiseptics, the first thing we were led to examine on picking up this new edition, was his present position on that subject. We are pleased to find that experience has caused him to acknowledge, though in an apologetic manner, some of the advantages which have resulted from the teachings of Sir

Joseph Lister. Though he does not, as is the tiresome custom of some, repeat, in every instance which calls for the knife, the rules for preparing for an aseptic operation, his antiseptic treatment of wounds and his method of preparing the patient for operation are perfectly satisfactory. However, we miss any allusion to the preparation of the operator and his assistants, or of the room. Can this be the reason for his being able to write "I have not, indeed, found any marked diminution in the mortality after operations by its (the antiseptic method) employment"?

The author has made a departure in this edition by allotting different sections to gentlemen specially familiar with them. A new chapter on Surgical Bacteriology, from the pen of Professor B. C. Nancrede, has been included, in which is given the characteristics and staining properties of the more important and common micro-organisms. Professor G. E. De Schweinitz has rewritten the section on Diseases of the Eye, and brought the subject up to date in as comprehensive a manner as is possible in so limited a space. The subjects of Gynecology and Diseases of the Ear have been revised by Professors Barton C. Hirst and B. A. Randall, respectively.

The idea of including these special sections in a work on general surgery, was undoubtedly a good one, at the time this work originated, but since these subjects have come to occupy such important positions as independent branches, and such excellent and thorough text-books, devoted to them exclusively, have become so abundant, it would probably be wiser to eliminate them entirely from such works as this.

Ashhurst's has long been the leading text-book on surgery in many medical colleges, and will, no doubt, continue to be as

long as it deals in so practical and comprehensive a manner with the principle and practice of surgery. Many of the old statistical tables have been omitted, as they do not represent truly the results of operations at this date. Several new illustrations have been added, and the publishers have left nothing to be desired in the mechanical part of the book.

Duane's Students' Dictionary of Medicine. The Students' Dictionary of Medicine and the Allied Sciences. Comprising the Pronunciation, Derivation and Full Explanation of Medical Terms, together with much collateral descriptive matter, numerous tables, etc. By ALEXANDER DUANE, M.D., Assistant Surgeon to the New York Ophthalmic and Aural Institute; Reviser of Medical Terms for Webster's International Dictionary. In one square octavo volume of 658 pages. Cloth, \$4.25; half leather, \$4.50; full sheep, \$5.00. Philadelphia, Lea Brothers & Co., 1893.

In the preparation of this volume, the author has spared no pains to produce a dictionary which will prove very convenient and useful to the student and practitioner. It is of a size comfortable to handle, and, while not an encyclopædia—that is what the author was trying to avoid—it will be found to contain about all the medical terms one will meet with in general reading. That Dr. Duane was selected as Reviser of Medical Terms for Webster's International Dictionary, is sufficient evidence of his ability as a medical lexicographer. There has been included, besides the spelling and definitions of terms, their pronunciation and derivation. Where there are more than two accepted ways of spelling any word, both appear, the preferable spelling being given the first position. A similar rule applies to pronunciation. Rules are given in the in-

roduction for forming the genitive and plural of Latin nouns, and where they vary from these rules, the genitive and plural forms are given with the noun. A very special feature of this dictionary is seen in the definition of terms. First is given a concise definition, then follows a full explanation of the terms as applied in medical usage. Thus, with the different diseases, we find the definition of each with its synonyms and general characteristics, followed by a brief synopsis of its etiology, symptomatology, prognosis and treatment. Extensive tables of Bacteria; the Muscles, with their origin, insertion, innervation and action; the Arteries—their origin and branches; the Joints—their ligaments and the bones forming them, with their arterial and nervous supply; the nerves and their distribution; and others, are incorporated and will prove of much service. We can commend this dictionary as one that will fully meet the requirements of students and practicing physicians.

Electro-Therapeutical Catalogue.

Sixteenth Edition. Octavo, pamphlet, 200 pages. McIntosh Battery and Optical Co., Chicago, 1893.

In preparing this catalogue the publishers have incorporated papers from several leading electro-therapists, in which are considered the physics and therapeutics of electricity. These are written by men who are not unreasonable enthusiasts, but who believe that electricity has a distinct place as a therapeutic agent, and should be kept there. The larger portion of the book is taken up with descriptions and illustrations of the great variety of electrical apparatus that is manufactured by this concern. As the book will be mailed free, it would be well for those contemplating investing in an electrical outfit to consult its pages.

A System of Legal Medicine. A Complete Work of Reference for Medical and Legal Practitioners, by ALLAN McLANE HAMILTON, M.D., of New York, and LAWRENCE GODKIN, Esq., of the New York Bar, assisted by thirty collaborators of recognized ability. In 2 royal octavo volumes of about 700 pp. each. Fully illustrated.

The great need of a Standard American Work on Medical Jurisprudence has long been felt; and this work, which is promised at an early day, gives abundant promise of being just what the Medical and Legal profession have so long wanted. Every department will be thoroughly and reliably treated.

E. B. TREAT, Publisher, New York, has in press for early publication the 1894 INTERNATIONAL MEDICAL ANNUAL, being the twelfth annual issue of this eminently useful work. Since the first

issue of this one-volume reference work each year has witnessed marked improvements; and the prospectus of the forthcoming volume gives promise that it will surpass any of its predecessors. It will contain complete reports of the progress of Medical Science in all parts of the world, together with a large number of original articles and reviews on subjects with which the authors' names are especially associated. In short, the design of the book is, while not neglecting the Specialist, to bring the General Practitioner into direct communication with those who are advancing the Science of Medicine, so he may be furnished with all that is worthy of preservation, as reliable aids in his daily work. Illustrations in black and colors will be consistently used wherever helpful in elucidating the text.

Necrology.

JOHN J. SUMMERELL, M.D.

On the 17th of December, 1893, at the age of 74, Dr. J. J. Summerell passed to his reward. His fatal illness was double pneumonia and his suffering was of but few days.

Dr. Summerell took his degree in medicine from the University of Pennsylvania in 1844. The same year he settled in Salisbury, where he practiced for nearly fifty years, confining himself strictly to his profession, in which he was eminently successful, enjoying the confidence of the community and the respect and honor of his medical brethren throughout the State. For over thirty years he was the Superintendent of Health for Rowan county and phy-

sician for the county home for the aged and infirm, and in this office he was able to do much for the general health of the town of Salisbury and the county of Rowan. When the State Medical Society was established he became a member, and in 1862 was elected President of that learned body. It was always a great pleasure to him to attend upon its annual sessions and contribute by his tongue and pen towards its usefulness. Though strictly a physician, he was a broad minded and public-spirited man, fully alive to all the great objects of public welfare and moral and religious progress around him. With the new discoveries in medicine and surgery he continued to keep himself acquainted. He had a wide, and, at times, a lucra-

tive practice, and he was indefatigable in his attentions to the sick and suffering. He was a thoroughly conscientious man and had the courage of his convictions. Straightforward, plain-spoken, honest, he never failed to express an honest opinion when necessary.

A short time before his death he said to those around him that if it was the Lord's will that he should go, he would be satisfied, and declared a firm and fearless hope in Jesus Christ as his Saviour. His end was peace.

C. M. P.

E. BURKE HAYWOOD, M.D.

The death-roll of the North Carolina medical profession has been marked with the names of some of the leading men of the guild in the past few years, and it is with sorrow that we chronicle the demise of Dr. Edmund Burke Haywood. He descended from a long line of illustrious ancestors and inherited the sterling character of the best of his family. He was educated at Lovejoy's School in Raleigh, then a famous Academy, and entered thence the University of North Carolina, where he laid the strong foundations upon which he built up the reputation of a most skilled surgeon and physician. He was possessed of a calm, inquiring mind, and undertook the solution of the problems of sickness and the relief that medicine or surgery could afford, with a patient intelligence that wrought out for him an abounding confidence in his community and wherever his aid was sought for. His abilities as a physician, his preëminent honesty of purpose and action, and his superior wisdom, made him, in all matters that came within the scope of his profession, the trusted advisor of different administrations that have ruled affairs at the Capital for the

past quarter of a century; and his death is a public loss, involving, as it does, the medical fraternity and the administration of the charities of the State.

The North Carolina Medical Society was always a source of interested care and pride to him, and he watched its growth and influence with the pleasure of one who had known of its early days of struggle, and participated in the sturdy resolution that had actuated the fathers to make the organization a power for good in the Commonwealth. The younger men who are taking the reins and guiding the affairs of the Society now, cannot too ardently study the history of the characters and lives of the leaders of the earlier days of our Society. Death can only deprive us of their loved and cherished presence--it cannot destroy the lessons their lives have lent us, and it will not lessen our zeal to emulate their good example, when we recall their good deeds and worthy lives.

The Raleigh Academy of Medicine, of which Dr. Haywood was President at the time of his death, has appointed one of its members to prepare a sketch of his life, which we will offer our readers in a later issue.

We tender our sympathies to his bereaved family, with the assurance that we knew of his interest in the welfare of the JOURNAL, and hold this in tender and grateful memory. G. G. T.

RESOLUTIONS OF RESPECT.

At a called meeting of the Raleigh Academy of Medicine, held January 22d, 1893, the following resolutions were adopted:

"WHEREAS, It has pleased Almighty God to remove from earth our beloved and honored brother, Dr. E. Burke Haywood, be it

"Resolved, That, while we deplore his loss and "sorrow most of all" that we shall "see his face no more," we bow in

submission to the Divine will, believing that the "Judge of all the earth will do right," and "His love is over all His creatures," and that we take comfort in the assurance that the God in whom he trusted was "his shield," and is now his "exceeding great reward."

"*Resolved*, That, while Dr. Haywood's reputation as one of the most distinguished members of the medical profession in North Carolina, known and honored far beyond the borders of our State, makes our praise unnecessary, we, who wrought beside him in his daily work, desire to place on record our respect for his spotless character, our esteem for his virtues and our admiration for those great natural abilities, that high culture, profound learning and exceptional skill which, united in him, shed a lustre on his chosen profession.

"*Resolved*, That we tender to the bereaved family of our departed brother our heart-felt sympathy in their sorrow, and that a copy of these resolutions be presented to them.

"*Resolved*, That this tribute of respect to one whom we delight to honor, and whose irreparable loss we mourn, be transcribed in the records of the Raleigh Academy of Medicine, published in the NORTH CAROLINA MEDICAL JOURNAL, and in the daily papers of the city.

"*Resolved*, That, as a mark of respect to our deceased brother, each Fellow of the Raleigh Academy of Medicine wear, for a period of thirty days, the usual badge of mourning

W. I. ROYSTER, M.D.,
P. E. HINES, M.D.,
R. H. LEWIS, M.D."

JAMES PARRISH, M.D.

On the morning of the 25th of January, 1894, Dr. James Parrish died at his home in Norfolk, Va. He had been physically delicate for some months, and the kindest attention and ablest medical counsel were unable to avert

the sad sequel. Dr. Parrish was born 1839, at Portsmouth. His academic training was received at the Virginia Collegiate Institution. He graduated from the Medical Department of the University of Virginia in 1858, and from the University of the City of New York the year following. He enlisted in the Confederate Army as a private in Co. K., Ninth Virginia Infantry, and on November 21st, 1861, was commissioned surgeon with the rank of major. He was a member of the Board of Health, of Virginia, of the Board of Examiners and of the Quarantine Board. He was an honored member of the Virginia State Medical Society, in which he held many positions of honor. We extract the following from an editorial notice of Dr. Parrish, which appeared in the *Norfolk Landmark* of January 28th:

"His life was devoted to the noble work of a good doctor, and it may be truly said of Dr. Parrish that he wore his life out in the diligent and exacting labor of a busy physician. He was a gentleman of the most agreeable manners, in whose daily walk and conversation the amenities of life shone pre-eminently. His tastes were refined and cultivated; he was an ardent lover of everything that is good in literature, science and art; and he was naturally a man of the most luminous intelligence. So we may say, also, that he was a useful man—useful in many ways and to many people and to many interests, and it is no exaggeration of friendship, nor hyperbole of tenderness to affirm that, honor his memory as we may, we should fall short of that which is due to his worth and virtue."

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

We are in receipt of a neat diary, vest-pocket size, gilt edges, and the pages divided into parts and dated, one for each day in the year. It is sent out by the McArthur Hypophosphite Co., and will be mailed to any one sending 20 cents to the above concern, at Boston, Massachusetts.

The firm of Hummel & Parmele (Medical Journal Advertising) expired by limitation December 31st, 1893. After the expiration of the articles of partnership on December 31st, 1893, the Medical Journal Advertising business of Hummel & Parmele will be carried on by Dr. Hummel, as heretofore, under the firm name of A. L. Hummel, M.D., Medical Journal Advertising, at 257 So. Fourth St., Philadelphia, Pa.

The Faculty of the College of Physicians and Surgeons of Richmond announce the establishment of a summer school of medicine from April 9th to May 28th, 1894. It is intended as supplementary to the regular course, and is designed to meet the requirements of practitioners as well as undergraduates. Dr. J. Allison Hodges is Chairman, and Dr. M. D. Hoge, Jr., is Secretary. With the new hospital, recently opened, and those already existing, this school has ample facility for clinical work, and the JOURNAL wishes it much success.

Does it pay to make a liberal appropriation for an efficient Board of Health? Judging from the following estimates of the cost of several epidemics it would

seem so. The cost of the epidemic of yellow fever at Brunswick and Savannah in 1876, cost those cities not less than \$3,000,000, while the whole State of Georgia was put to an expense of fully \$10,000,000. That at Fernandina in 1877 cost the city \$1,000,000 and the State of Florida nearly \$2,000,000. The epidemic of 1888 in Florida, is estimated to have cost the State from \$7,000,000 to \$15,000,000, while the epidemic that began in New Orleans in 1878 and spread through the entire Mississippi region, was conservatively estimated as costing the infected territory \$200,000,000!

The Editors of *Mathew's Medical Quarterly* (P. O. Box 434, Louisville, Ky.) desire to obtain the names of all reputable surgeons in the United States who limit their practice to diseases of the rectum.

During the past month two cases of small-pox have been reported in North Carolina. The first, from the extreme western portion, was imported from Tennessee, and the patient, rather than be subjected to quarantine, immediately returned. All with whom he came in contact had been vaccinated and there was no spread. The second case was at Wadesboro, in the case of a horse-drover. Prompt isolation and vaccination prevented any other cases.

Dr. P. C. Remondino, in the *National Popular Review*, seriously proposes circumcision of negroes as a means of putting a stop to the frequent rapes

committed by that class of our citizens. If the circumcision were performed each week, it *might* have the desired effect, but that would be a little troublesome.

Prof. Billroth, the eminent Vienna surgeon, died a few days since, of heart disease. He was born in 1829.

The Kentucky School of Medicine is preparing to spend \$50,000 in an additional building and hospital.

The Jefferson Medical College will, with the session of 1895-'96, adopt a compulsory four years course. The ball is gathering force as it rolls. Good.

The Tri-State Medical Association contemplate making such a change in their Constitution as will enlarge their territory to embrace all that section east of the Mississippi river and south of the Ohio.

Dr. J. H. Isham, a greatly distinguished physician, according to his advertisement recently displayed in the Morganton, N. C., papers, has been "held up" by the local authorities and bound over to the March term of the Superior Court, to be tried for practising medicine illegally in North Carolina. These fellows should be brought before the bar of justice whenever they attempt a violation of the State laws. He was sent to this State by the manufacturers of some quack remedy, to sell their goods or create a demand for them. A glowing wood-cut adorned the ad.

Dr. Jacobi, Chairman of the American National Committee of the Eleventh International Medical Congress, has received the following communications from the Secretary General:

"1. Papers to be read in any of the Sections of the Congress should be announced on or before January 31st, 1894,

to the Secretary General, Prof. E. Maragliano, Ospedale Pammatone, Genova, Italy.

"2. The title of the paper ought to be accompanied with a brief abstract of its contents and conclusions.

"3. The programme to be distributed will contain the titles of all the papers announced before August 31st, 1893, and since.

"4. The reductions granted by the railway companies months ago will be available from March 1st to April 30th, 1894.

"In the interest of such medical men as will sail for Europe before official cards will have been received from the General Committee, Dr. Jacobi proposes to supply, in as official a form as he thinks he is justified in doing, credentials which are expected to be of some practical value. It is suggested, besides, that a passport may increase the traveler's facilities."

MATHEW'S MEDICAL QUARTERLY.—The Editors of this new journal some weeks since announced that the first issue would appear in January, and we have awaited it with interested expectancy, and now that it has reached us, have read it with much pleasure and profit, and have only words of praise to write of it. It is under the editorship of Dr. Joseph M. Matthews and Dr. Henry E. Tuley, both occupying chairs in the Kentucky School of Medicine in Louisville. It is devoted to diseases of the rectum, gastro-intestinal disease and rectal and gastro-intestinal surgery. The first number contains 198 pages of reading matter, of which 134 are original. Among the contributed papers are some from the leading men of this and other countries, and they are very interesting and useful. Should the future numbers maintain the general excellence of this,

the completed volume will make an excellent cyclopædia of the subjects which come within its purview. The price is only \$2.00 per annum.

An advertisement in the *Wilmington Messenger* says the postmaster at Winnie, N. C., would like to correspond with a well qualified physician desiring a good location.

In view of the prevalence of small-pox in Boston and New York, and the signs of infection scattered through New England, the State Board of Health of Vermont has recommended a general vaccination throughout the State.

An examination of candidates for appointment to the grade of Assistant Surgeon in the Marine Hospital Service will be held in Washington, D. C., Monday, April 16, 1894. For further information address, The Supervising Surgeon General, U. S. M. H. S., Washington City, D. C.

The daily papers are telling the exploit of a Baltimore doctor, Dr. William Morr, who recently, in the presence of several of his confrères, at the meeting of a local Society, swallowed 3 grains of morphia and immediately followed it with 4 grains of potassium permanganate, claiming the latter to be an absolute antidote for morphia. He afterwards entered into the discussions of papers read at the meeting, and never experienced any drowsiness, even, from his dose. He was, moreover, peculiarly sensitive to the effect of narcotics.

THE GREATEST CONSULTATION IN HISTORY.—The veracious daily press states that the mother-in-law of the Mikado of Japan has recently been ill. She was attended by 423 physicians, but in spite of that has pulled through.

The 423 medical men hadn't much to say as to the cause of the lady's illness, but a Buddhist priest of ingenious mind declared that it was owing to the introduction of railroads. His logic was simple. Before there were railroads, she was well. After there were railroads, she was ill. What could be more clear than the conclusion he drew!—*Medical Record*.

LA GRIPPE.—A physician who has just passed through an attack of this distressing disease, thus writes to a friend: "Did you ever have this infernal disease that they call the grippe? If not, don't. I have been through it for the last six weeks and am ready to give my friends the benefit of my experience. It is certainly the most diabolical malady that ever got out of Pandora's box. If the old girl has anything worse in reserve, I trust she will keep the lid of her Saratoga safely locked and then kindly sit on it. Sneeze, freeze to death, burn up, have your energy sapped, let all the clouds of heaven lower over your head, get on familiar terms with all the blue devils that ever escaped by volcanic exit from equatorial eternity—do all of this, and keep it up for six weeks, and then you can intelligently listen to a lecture on *la grippe*. Cerebration becomes altogether of the too conscious sort for literary work."—*N. Y. Med. Jour.*

FOR SALE.—My property; 8-room residence; modern conveniences; barns and out-houses—all new; fine orchard, etc.; in a thriving town in middle section of North Carolina; with a \$2,000 practice, 80 p. c. collected last year; price, \$1,600—cost of property. Reason for selling, going South. Rare opportunity for live physician. Will introduce purchaser. Address, SURGEON, Care N. C. MED. JOURNAL.

Reading Notices.

BLACKWELL'S ISLAND HOSPITAL, N. Y.
J. S. TYREE, Washington, D. C.:

Dear Sir:—This is the first testimonial I have ever given in regard to the worth of any medical preparation. I have used your Pulv. Antiseptic Comp. with gratifying results in several cases of Pruritis Vulvæ, and in Leucorrhœa. I believe it to be an excellent preparation and purely antiseptic.

DR. S. HEMINGWAY,
Gynæcologist Alms and W. House.

I have used PEACOCK'S BROMIDES in four cases of epilepsy, and it is only fair for me to state that I have had good results in each case. In 3 of these cases there were no attacks at all while the medicine was used, although they had been frequent and severe in spite of the exhibition of the ordinary bromide salts. I say while it was used, because I have had difficulty in convincing some patients that they were not entirely cured after using one bottle: but where I have been able to have them continue the treatment for a reasonable time after the disappearance of the fits, there has been no return of them even after the medicine was stopped.

CHARLES C. JOHNSON, M.D.
Columbia, S. C.

Have you ever seen a bottle of McArthur's Chemically Pure Syrup Hypophosphites (Lime and Soda)? It is the most elegant preparation in appearance you ever saw. In all details, color of the syrup, which is constant, bottle, label, and whatever else betokens purity and elegance is expressed in that preparation. You all know the value of the Hypophosphites of Lime and Soda. McArthur's Syrup Hypophosphites (Lime and Soda) Comp. is the standard preparation, and as a physician has said: "Whatever you can do with the Hypophosphites of Lime and Soda you can do with this preparation—and that is a great deal."

Every physician knows full well the advantages to be derived from the use of Antikamnia in very many diseases, but a number of them were still lacking a knowledge of the fact, that Antikamnia, in combination with various remedies, has a peculiarly happy effect; particularly is this the case when combined with salol. Salol is a most valuable remedy in many affections, and its usefulness seems to be enhanced by combining it with Antikamnia. The rheumatoid conditions so often seen in various manifestations in this country, are wonderfully relieved by the use of this combination. The 5-gr. tablet containing $2\frac{1}{2}$ grs. each of Antikamnia and salol, is recommended highly in the treatment of cases of both acute and chronic cystitis. The pain and burning is relieved to a marked degree. Salol makes the urine acid and clears it up. This remedy is a reliable one in summer diarrhœa, entero-colitis, dysentery, etc. In dysentery, where there are bloody, slimy discharges, with tormina and tenesmus, a good dose of sulphate of magnesia followed by Salol and Antikamnia, will give good results.—H. B. PETTINGIL, M.D.

A writer in the *Medical Age* says: "Recently a compound of Iodine and Cresol, both of which are powerful antiseptics, in a single remedy argues *a priori* in favor of its utility. The experience of Szalfeld shows the truth of this statement. He used losophan in a large variety of affections of the skin with good results. In tinea tonsurans of the face, scalp and body a 1 to 2 p. c. solution in alcohol and water effected cure in a majority of cases, while in pityriasis versicolor a 1 to 2 p. c. ointment was very useful. Parasitic sycosis, which, as is well known, is very obstinate to treatment, was much improved. In pediculosis capitis or pubis the 1 p. c. solution of losophan was found a convenient and rapid means of destroying the parasite. It may also become a remedy for eczema, sycosis vulgaris, acne vulgaris, etc., etc."

WARNER & CO.'S PIL: CHALYBEATE



3 Grains. Dose 1 to 4 Pills.

COMPOSITION:

Ferri Sulph. $\text{Fe}_2 \text{SO}_4$ }	Ferri Carb. Fe CO_3 }
Potass. Carb. $\text{K}_2 \text{CO}_3$ }	Potass. Sulph. $\text{K}_2 \text{SO}_4$

As Prepared by WM. R. WARNER & CO.,

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The above combination which we have successfully and scientifically put in pill form, produces, when taken into the stomach, Carbonate of the Protoxide of Iron (Ferrous Carbonate) in a quickly assimilable condition.

This pill contributed to make the reputation of Niemeyer, and the following language, which speaks without comment, is taken from his TEXT BOOK ON THE PRACTICE OF MEDICINE.

Prof. NIEMEYER says: "For more than twenty years I have used these pills almost exclusively in Chlorosis, and have witnessed such brilliant results from them in a large number of cases that I never needed any opportunity to experiment with other articles. At Magdeburg and Griefswald I often had to send my recipe for the pills to a great distance, my good fortune in the treatment of Chlorosis—to which by-the-by, I owe the rapid growth of my practice—having given me reputation as the possessor of a sovereign remedy against that disease."

FOR THE SPEEDY RELIEF OF

NERVOUS HEADACHE and BRAIN FATIGUE.

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SODA.

Useful in Nervous Headache, Sleeplessness, Excessive Study, Over Brainwork, Nervous Debility, Mania, etc.

Dose.—A heaping teaspoonful in half a glass of water, to be repeated once after an interval of thirty minutes, if necessary. Each teaspoonful contains 30 grs. Bromide Sodium and 1 gr. Caffein.

It is claimed by some prominent specialists in nervous diseases that the Sodium Salt is more acceptable to the stomach than the Bromide Potassium. An almost certain relief is given by the administration of this Effervescing Salt. It is also used with advantage in *Indigestion, depression* following alcoholic and other excesses, as well as *nervous headache*. It affords speedy relief for mental and physical exhaustion.

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and Bromide Soda, 10 grs.

A Remedy in the Treatment of

Rheumatism, Gouty Diathesis, Etc.

Dr. A. Garrod, the well-known English authority on Gout, who was the first to introduce the Lithia Salts in the treatment of the gouty diathesis, states that their action is materially increased by being administered in a *freely diluted form*.

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Uses: Epilepsy, Uterine Congestion, Headache, and all Congestive, Convulsive and Reflex Neuroses.

This preparation produces results which can not be obtained from the use of commercial Bromide substitutes.

DOSE.—One to two FLUID drachms, in WATER, three or more times a day.

CHIONIA FROM CHIONANTHUS

Uses: Biliousness, Jaundice, Dyspepsia, Constipation, and all Diseases Caused by Hepatic Torpor.

CHIONIA stimulates the Liver and restores it to a healthy condition, without debilitating the system by Catharsis; does not purge, per se, but under its use the Liver and Bowels gradually resume their normal functions

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Cactina is the best cardiac and general tonic in the materia medica, and, therefore, indispensable in the treatment of every form of weakness.

Each Pillet represents one one-hundredth of a grain of Cactina—the active proximate principle of Cactus Mexicana.

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PRICE, PER BOTTLE (100 PILLETS), 25 CENTS.

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BROMIDIA.

Each fld. dr. contains 15 gr. *each* Pure Chloral Hydrat. and Purified Brom. Pot., and $\frac{1}{8}$ gr. *each* Cannabis Indica and Hyoscyam. Dose—One-half to one fld. drachm in water or syrup.

PAPINE.

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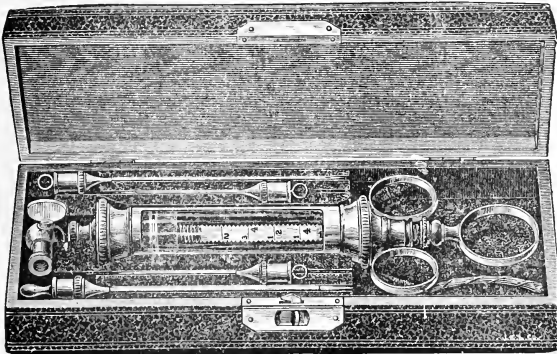
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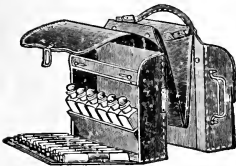
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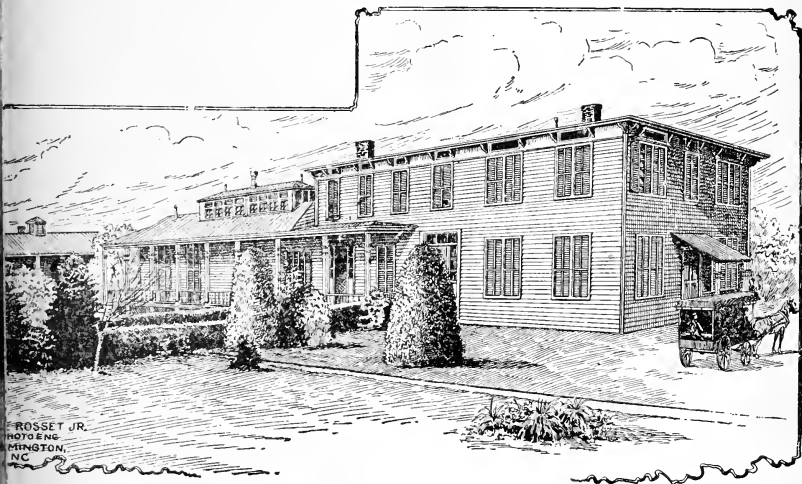
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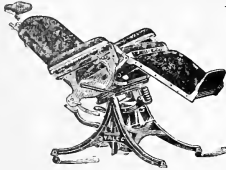


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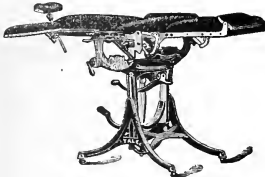


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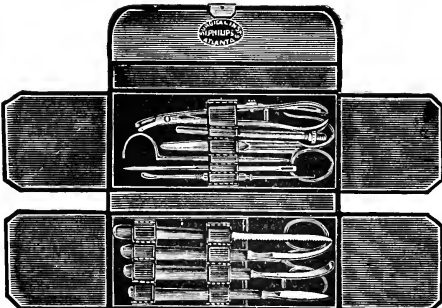
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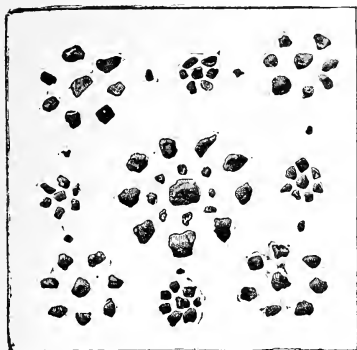


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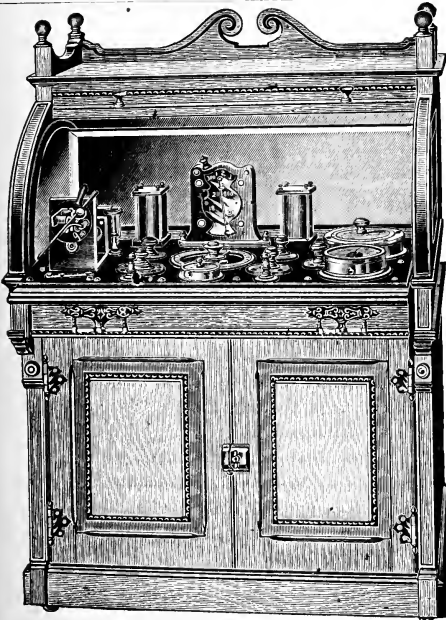
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Table of Contents, - - Page 5.)

Index to Advertisers, - Page 6.)

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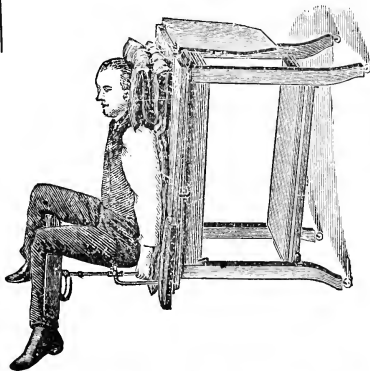
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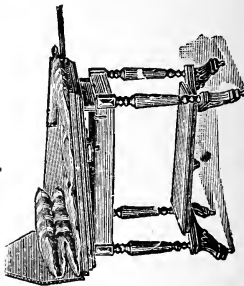
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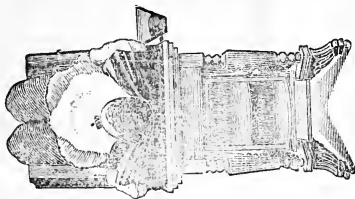
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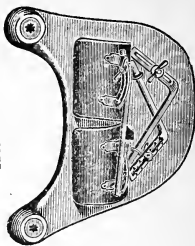
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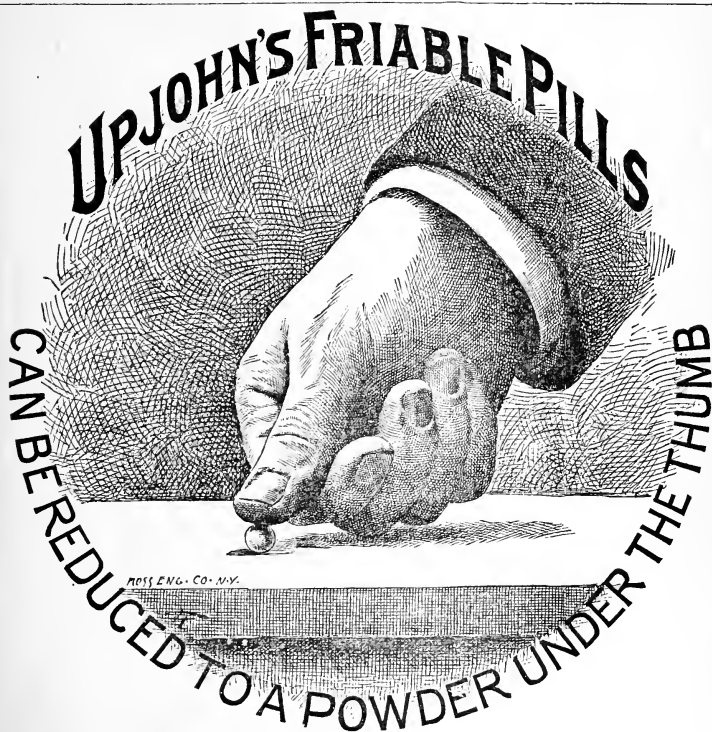


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Table of Contents.

Original Communications :

Puerperal Eclampsia— <i>D. A. Stanton, M. D.</i>	91
Historical Notes and Practical Observation on the Chemical Properties, Hygienic Physiological, and Therapeutical Characteristics of Sulphur and Sulphurous Anhydride— <i>Joseph Jones, M. D.</i>	95
A case of Intestinal Obstruction— <i>M. W. Gibson, M. D.</i>	102
The Treatment of Post Partum Hæmorrhage, with the Report of a Case— <i>Frank T. Meriwether, M. D., U. S. A.</i>	103
A New Method of Examining the Kidney, Especially for Stone— <i>Charles P. Noble, M. D.</i>	105

Selected Papers :

Treatment of Syphilis— <i>Henry H. Morton, M. D.</i>	107
--	-----

Society Reports :

<i>American Electro-Therapeutic Association.</i> —Address of President—Dr. Newman's Statistics in Urethral Stricture—Treatment of Goitre—Treatment of Dysmenorrhœa.....	113
---	-----

Editorial :

North Carolina as a Health Resort—A Tour of Investigation	118
The Wilmington City Hospital	120
Society Prizes	120

Reviews and Book Notices :

Annual of the Universal Medical Science— <i>Sajous</i>	121
An American Text-Book of Gynecology— <i>Baldy, etc.</i>	122
New Truths in Ophthalmology— <i>Savage</i>	123
Syllabus of Lectures on Practice of Surgery— <i>Senn</i>	123
A Practical Treatise on Nervous Exhaustion— <i>Beard-Rockwell</i>	123
How to Use the Forceps— <i>Landis-Bushong</i>	124
The Physician's Wife— <i>Firebaugh</i>	124

Abstracts :

Diagnosis and Operative Treatment of Acute Intestinal Obstruction Due to Bands.....	125
Abdominal Hysterectomy, with Treatment of Pedicle by intra-Peritoneal Method.....	127
Membranous Croup.....	128
The Letter of the Law.....	129
Use of Salol in Diarrhœa.....	129
Examination of the Female Bladder.....	130
Scapulo-humeral Palsy of Peripheral Origin.....	130
Absorption of Salicylic Acid by the Skin.....	131
Treatment of Fractures of Lower Extremities.....	132
New Remedy for Enlarged Prostate.....	133
Miscellaneous Items.....	133
Reading Notices.....	137

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Index of Advertisers.

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Fairchild Bros. & Foster.....	Cover	1	Wheeler Chemical Works	18
Parke Davis & Co.....	"	1	H. H. Ballard	18
Combination Offer.....	"	2	C. F. Boehringer & Soehne.....	19
Mr. Fellow.....	"	3	Retreat for the Sick.....	20
N. Y. Pharmacal Co.....	"	4	St. Luke's Home	20
W. H. Schieffelin & Co.....	1		H. O. Hyatt, M. D.....	20
Daggett Chair Co.....	2		W. Scott Marshal, M. D.....	20
The Upjohn Pill and Granule Co.....	3		Wilmington City Hospital.....	21
Sharp & Dohme.....	4		Canton Surgical Chair Co.....	22
Henry K. Wampole & Co.....	5		Scott & Bowne.....	23
Summer School of Medicine.....	6		Philadelphia Opt. and Watch Co.....	23
Virginia Pharmacal Co.....	7		Codliver Glycerine Co.....	23
McArthur Hypophos. Co.....	8		Isaac Phillips.....	24
Southerland	8		Mariani & Co.....	25
Antikamnia Chemical Co.....	8		Geo. R. French & Sons.....	25
Renz & Henry.....	9		Walker-Green Chemical Co.....	25
Dr. N. B. Shade	9		Lambert Pharmacal Co.....	26
The Doliber Goodale Co	10		N. Y. Pharmaceutical Co.....	27
Wm. R. Warner & Co	11		Hamburg-American Packet Co.....	27
Peacock Chemical Co—Sultan Drug Co.....	12		Thos F. Goode.....	28
Battle & Co	13		Maltine Mfg. Co.....	29
The Sanitarian	13		E. V Richards.....	29
Od Chemical Co	14		Harris Lithia Water.....	30
Julius Fehr, M. D.....	14		Angier Chemical Co.....	31
Kentucky School of Medicine.....	15		McIntosh Battery Co.....	31
Bellevue Hospital Medical College	15		Dios Chemical Co.....	32
University of Virginia.....	15		Analgia Chemical Co.,	32
University of Pennsylvania.....	16		J. S. Tyree	33
University of North Carolina—Med Dept.....	16		Sneed & Co.....	33
North Carolina Medical College.....	16		Cal. Fig Syrup Co.....	34
Vaccine Virus.....	16		Rio Chemical Co.....	35
College Physicians and Surgeons, Rich.....	17		Svapnia.....	36
E. A. Yarnall Co..	18		C. N Crittenton.....	36

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No. 3.

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PUERPERAL ECLAMPSIA.

BY D. A. STANTON, M.D., High Point, N. C.

(Read before the Guilford County Medical Society, November 6, 1893.)

This paper was not prepared with the view of teaching you gentlemen anything, but simply in response to duty imposed by our President, and to introduce a subject that we may all be benefited by the discussion that may follow.

The subject which I have chosen for the occasion will be introduced by briefly narrating a case which came under my care more than a year ago, and is reported from my case-book, and not from memory.

Mrs. M. was married at the age of 13 years. The day she was 13 years and 11 months old I was called to deliver her. The husband stated that she lacked one month of being to full term.

On arriving at the house at 6 o'clock in the morning, I found the patient un-

conscious and bloody froth issuing from the mouth with each respiration, which was slow and very heavy. On a closer inquiry, I learned from the husband that he was aroused from sleep at 5 o'clock that morning by an unusual noise from his wife. The case was a plain one, and a diagnosis easily arrived at. Although the patient was of light weight and not possessing a superabundance of blood, I corded her arm and drew eight ounces of blood therefrom. I then gave morphine sulphate, $\frac{1}{4}$ gr., and atropine sulphate, 1-100 gr., hypodermatically, and proceeded to make a digital examination, but before I was through with the examination a convulsion came on. After the convulsion had passed off, I found the os soft and dilated to the size of a 25-cent piece. During the next hour

and a half she had two more convulsions. After the last one passed off I gave another injection of morphine sulphate, $\frac{1}{4}$ gr., tr. veratrum viride, 10 gtts., after which there were no more convulsions; the skin softened, slight perspiration set in, and the pulse dropped to 39 per minute. Patient continued unconscious, was very restless and vomited frequently. There was but little change in the progress of the labor until 4 o'clock in the afternoon, at which hour the os was dilated to the size of a 50-cent piece. The catheter was passed and about four ounces of urine drawn. The specimen was saved for analysis, but by accident it was destroyed. The appearance, however, was normal, and there was no evidence about the patient that indicated an albuminuric condition.

At this hour (4 p. m.) I called my partner, Dr. J. J. Cox, to assist in delivering with forceps, which procedure was agreed to by him, provided we could pass the blades through the superior strait. An effort was made and we found the pelvic outlet too narrow to admit Elliott's or Hodges' forceps. The patient being in a fair condition, we decided to wait on nature a few hours, and see what the result would be. During that time we were discussing and preparing to do a Cæsarean section.

At 6 p. m. the head had engaged, and at 7 p. m. the patient was delivered of a living child, weighing $3\frac{1}{2}$ pounds. She passed a fairly comfortable night, and consciousness returned with the approach of day. Her puerperium was eventful. There were chill, high fever, suppression of the lochia, diarrhœa and extreme tympanitis, all of which subsided in ten days, and the young mother was dismissed as well.

The subject of Puerperal Eclampsia has always been one of more than common interest to the profession. In this

paper it is not my intention to dwell upon the different theories advanced as to the etiology of puerperal eclampsia, for we seldom read our weekly and monthly journals but that we get the benefit of lengthy articles by distinguished writers on the subject, and after all is read, we are still undecided as to the etiological factor.

What I want is chiefly to call your attention to the treatment of puerperal eclampsia and the little importance attached by the patient and the physician to a supervision of the patient in all cases of expected confinement which we are asked to attend. The laity, as a rule, give themselves but little concern about an expected confinement, and we, as the custodian of the public health, sometimes show an equal indifference. We are too much disposed to take the statement of the husband, as regards any ailment that his wife may have a few weeks before confinement, as sufficiently correct to guide us in making a prescription. More frequently all that is said is: "Doctor, I want you to attend my wife sometime next month." In the majority of cases such an engagement is all that is necessary. But it is the exceptional cases that give us trouble, hence the importance of watchfulness on the part of every physician over every case that solicits his services, that the laity may be educated to that point that they will give us a chance to fortify against the cases that do terminate in convulsions. How often has it happened in the experience of every physician present that, their services having been engaged in the manner described, when they reached the patient they found a woman who for weeks had been in ill-health, and who presented a sallow skin, the feet, face and sometimes the whole body œdematous, with headache, pains in bowels, constipation, and kidneys defi-

cient in their action? We are face to face then with a condition that threatens the life of two beings. A patient in the condition above described affords poor opportunity to the physician whose hands are almost tied against a conflagration that endangers the patient's life. All he can do is to stimulate the emunctories with the best agents at his command and hasten delivery; and all this often fails to avert convulsions.

Notwithstanding the mortality to both mother and child in puerperal eclampsia has been greatly lessened during the past decade or two, there is yet room for improvement, and in *prophylactic* treatment lies our chief hope.

Let the pathological factor be what it may in the causation of puerperal eclampsia, there are unmistakable symptoms in almost every case that terminates in convulsions to warn the physician that nature is at fault, and that will serve to guide him in assisting her back to a more physiological condition. When we are deprived of seeing the patient until the convulsive seizures have set in, we are suddenly thrown into the presence of the most formidable surroundings that can meet the practitioner.

The treatment is prophylactic and immediate.

Prophylactic Treatment.—In prophylactic treatment lies our only safeguard, and all are familiar with the obstacles in the way of this treatment; but by some attention on the part of every physician this hindrance could be, in a measure, removed, and not only would our labor cases fare the better, but we would be relieved of much anxiety. Successful prophylactic treatment depends upon the willingness of the pregnant woman to submit herself to our care for weeks before confinement. When this is done,

and it always should be, we can see that the secretions are kept in a physiological state as nearly as possible under such circumstances; the bowels should not be allowed to become constipated; the urine should be examined weekly to ascertain that there is not an excess of albumin being drawn from the blood. Whether puerperal convulsions are dependent upon an albuminuric condition or not, we know that its abnormal presence shows a pathological state demanding treatment. Frequent warm baths assist the skin to throw off effete matter, thereby relieving, in a measure, the other organs of excretion that are more or less burdened during the pregnant state.

Immediate Treatment.—Only a few years ago venesection was regarded as the sheet-anchor in the treatment of puerperal convulsions and blood was always drawn copiously, and, there is sufficient reason to believe, with often much benefit to the patient; but with the many advantages afforded us at the present for managing our cases of puerperal eclampsia, the cases calling for venesection are few and far between. Where there is well-marked cerebral congestion and vascular tension, with a livid face, a full, bounding pulse, and the patient of full habit, there is nothing that will so effectually bring quick relief as taking from 12 to 20 ounces of blood; but this should be followed immediately with other treatment. It sometimes occurs when a copious bleeding is practiced and the patient quickly regains consciousness, that we soon see her again in convulsion. After venesection the quantity of blood soon becomes the same through the serum taken from all the tissues, while the quality is greatly deteriorated. A short time after a venesection we will find the arterial tension the same as before the

bleeding, but the blood far more watery. From this theoretical consideration it follows that abstraction of blood, if the above-mentioned conditions really caused convulsion, must be attended by an immediate favorable result, and, under certain circumstances, the disease cut short by it. But if all other conditions remain the same and the convulsions are not dependent upon a full habit, the blood-pressure soon reaches its former height, and the quality is so deteriorated that the danger of the disease is greatly increased.

The general constitution of the patient should serve as a guide in the use of the lancet. It is needless to remark that, if the patient is weak and feeble, it should be discarded entirely and other remedies resorted to. In any case it can be looked upon as a temporary expedient only, useful in warding off immediate danger to the cerebral tissues, but not as the main agent in treatment. Bleeding should be followed by a hypodermatic injection of morphia sulphate, $\frac{1}{4}$ to $\frac{1}{2}$ gr., and atropia sulphate, 1-50 gr. Should there be a return of the convulsions, repeat the morphia and add to the injection 5 to 10 gtt. of tr. veratrum virile, the latter agent repeated often enough to keep the pulse to 50 or 60 beats a minute. The bowels should be thoroughly evacuated by large enemata of warm water, turpentine and glycerine. Should all this not effectually control the attacks, chloral hydrate, in drachm doses, should be thrown into the rectum, dissolved in 2 ozs. of warm water or 1-10 gr. of hydrochlorate of pilocarpin, given subcutaneously.

I have reserved the mention of chlo-

roform for two reasons: First, because we want to control every case of puerperal eclampsia with the agent or agents that will be most permanent in their action and restore consciousness. And second, because there are concomitant indications in the case that can be better carried out under the influence of chloroform than under the influence of the other treatment, namely, dilatation and rapid delivery—the end sought for in every case. In chloroform we have an agent that can be relied upon absolutely, so far as the immediate control of the convulsions is concerned, but an important question to decide is, is that all that is necessary? There are so many causes that may produce the convulsions, that we should place our patient beyond their influence by those agents which will most likely prevent their return.

Do not understand me as being opposed to chloroform in any stage of the convulsive attacks, for I am an advocate of its use, but advocate more strongly the method of treatment above-mentioned, because the constitutional effect is the more lasting and the ultimate result the same. No physician who has a proper appreciation of the care upon him, wants to sit for hours by the bedside of a woman in convulsions, watching the progress of the case and the effect of the anæsthetic, a thing that will have to be done sometimes, if we depend entirely upon chloroform; but after bringing the patient well under the influence of the other treatment, our labors will be greatly diminished and the danger to mother and child lessened.

HISTORICAL NOTES AND PRACTICAL OBSERVATIONS ON THE CHEMICAL PROPERTIES, HYGIENIC, PHYSIOLOGICAL AND THERAPEUTICAL CHARACTERISTICS OF SULPHUR AND SULPHUROUS ANHYDRIDE.

BY JOSEPH JONES, M.D., LL.D., Professor of Chemistry, Toxicology and Medical Jurisprudence in the Medical Department of Tulane University of Louisiana.

CHEMICAL, DISINFECTANT AND THERAPEUTIC ACTION OF SULPHUROUS ANHYDRIDE AND SULPHUROUS ACID.

The efficient agents in the thorough system of disinfection as practised in the British Navy by Sir Roger Curtis and other officers, during the past century, were cleanliness, free ventilation, heat, lime and sulphurous anhydride (sulphurous acid).

The last mentioned agent (sulphurous anhydride) appears to have been the true and essential disinfectant or destroyer of the organic poison inducing the contagious fever.

Sulphur, the first disinfectant employed by the Greeks, has maintained its reputation from the time of Ulysses, who, after killing the suitors, fumigated the place with burning sulphur, to the present moment, when it is chiefly relied on for the destruction of the poisons of contagious diseases.

The dioxide of sulphur, sulphurous oxide, or sulphurous anhydride, resulting from the combustion (oxidation) of sulphur, is, at ordinary temperatures, a colorless, irrespirable, poisonous, combustible gas. As it is more than twice as heavy as atmospheric air, it may be collected by displacement, and when introduced into the hold of a ship, or any confined space, will gradually accumulate from the bottom upwards, and thus expel the atmospheric air.

It is also important to note that sul-

phurous anhydride may very readily be condensed into the liquid state by a pressure of three atmospheres, or by a freezing mixture of ice and salt. By its evaporation it produces intense cold, sufficient even to freeze itself, and rapidly to freeze water into which it is poured.

If sulphurous acid gas be generated by pouring muriatic acid upon the sulphite of lime or soda, in a form of apparatus similar to that of Babcock's fire engine or extinguisher, we may not only thus, in a very short space of time, evolve a large volume of gas, without the danger of fire, as in the burning of sulphur, but we are also able by such an arrangement to generate the gas under high pressure, and when it is allowed to escape into the hold of a ship, or in any confined space, a degree of cold may be induced which will be an important factor in the purification of the atmosphere. This plan of disinfection (the liberation of sulphurous acid in a special apparatus by the action of hydrochloric acid upon a sulphite) now for the first time proposed, is worthy of a careful trial at the quarantine stations.

The fumes of burning sulphur, or sulphurous anhydride, when brought into contact with the moisture of the atmosphere or water, is converted into sulphurous acid.

Both sulphurous anhydride and sulphurous acid act as powerful reducing

agents; sulphurous acid bleaches by forming colorless compounds with certain matters, but it does not, like chlorine, decompose the coloring matter, for the sulphurous acid may either be expelled by a stronger acid, or it may be neutralized by an alkali, and the color will be restored.

Sulphurous anhydride is a powerful antiseptic, its power of arresting fermentation having been recognized by the Greeks and Romans in the manufacture of wine, and it consequently has long been valued as a powerful disinfecting agent.

Meat which has been exposed to the action of sulphurous anhydride gas and then sealed up in a metallic canister filled with nitrogen, to which nitric oxide has been added to remove the last traces of oxygen, may be preserved fresh for years. In the process proposed to Mr. Gamgee for the preservation of fresh meat by sulphuric acid, the animal is killed with carbonic oxide gas, and the meat is kept in that gas and sulphurous acid. Meats may thus be kept fresh and of the original color for six weeks. Meat, vegetables and fruit subjected to the fumes of burning sulphur and charcoal, and then immersed in water containing the sulphurous acid in solution, resist decomposition and retain their natural appearance and form for months.

It is but just to suppose that sulphurous anhydride acts as a disinfectant in a complex manner. Thus it arrests decay in organic matter; it deoxidizes and afterward gives off its oxygen and acts as an oxidizer; it also acts as an acid and dissolves animal matter.

Just as sulphurous anhydride preserves meat from putrefaction and change, in a similar manner, without doubt it acts upon animal poisons and arrests their changes, and so alters their composition as to destroy their poison

ous action. In like manner sulphurous anhydride and sulphurous acid destroy germs, whether animal or vegetable.

The theory of the action of sulphurous acid held by those who regard the germs of contagious diseases as of parasitic and vegetable origin, has been well expressed by Dr. Dewar, of Kirkcaldy. He says: "It may be well to premise that our adoption of such an auxiliary implies a belief that the enemy of which we are in pursuit lurks about indefinitely; that its vitality can outlive ordinary processes of decay, and that it is transmitted, or at least located, in the atmosphere. This being the case, we may well assume that the germs are parasitic—most of them of vegetable origin; that some retain their peculiar properties independent of temperature or climate, and that some even can (as in cholera), in a dry climate, in the form of dust, be carried by the wind to distant points, where, as they absorb moisture, they retain their power of spreading devastation."

He treated his own cattle with sulphurous anhydride gas four times a day, the sulphur for six cattle being about as large as a man's thumb, and burning for twenty minutes, the attendant being shut in along with the cattle.

The cases of cure by this means in cattle plague are said to have been very numerous.

Mr. James Dewar (*Medical Times and Gazette*, Sept. 23, 1869) has also strongly recommended sulphurous acid as a topical application to wounds and sores, and has adduced very successful cases in which it was employed. The wounded surfaces should either be sponged with the acid of full strength, or the spray of the fluid acid should be applied by a suitable vaporizer. Cases of wounds have been recorded in which, after dressing in this manner, there was rapid

healing, with no discharge whatever; but the dressings require frequent changing, at least once in thirty-six hours.

Mr. Crooks says ("On the Application of Disinfectants"): "A mixture of sugar and yeast was kept in a warm room until it became in a state of active fermentation. An aqueous solution of sulphurous acid was added, when the fermentation instantly ceased. When examined under the microscope, after treatment with sulphurous acid, no apparent change was observed in the cells."

In the use of sulphurous acid for the disinfection of ships, hospitals and rooms, it should ever be remembered that it is poisonous to both vegetable and animal life, and that, even in small quantities, it acts as an irritant to the lungs, causing violent coughing, which becomes painful and dangerous, according to the amount used. Sulphurous acid fumigation is not, therefore, applicable to wards of hospitals, or cabins of ships, or rooms inhabited by human beings. All living beings should be removed from the space to be disinfected. This may readily be accomplished by fumigating wards and rooms and the different portions of a ship in succession. The fumigation should be followed by thorough cleansing of the furniture, beds and floors, and white-washing, in order to remove, as far as possible, those portions of contagious matter which have been disinfected and embalmed by the gas; and when the poison is concentrated and virulent, the cleansing and white-washing should be followed by a second fumigation.

Chlorine is, without doubt, one of the most effective disinfectants and germicides, but it should not be used simultaneously with sulphurous acid. By fumigating alternately with sulphurous

acid and with chlorine it would appear almost impossible for any disease germ to survive in any given space of air. Washing the floors and walls with a solution of chlorinated soda, or chlorinated lime, has proved, at the great quarantine station of Lisbon, Portugal, and in many other places, effective.

As New Orleans is situated at the mouth of one of the largest rivers, and holds daily communication with ports infected with yellow fever, all that relates to the history of disinfection as practised by her sanitary officers, is of interest and value, and we present the following facts relative to the use of sulphurous acid at this port:

Dr. Alfred W. Perry, who was quarantine physician to the Mississippi station from April 11th to October 14th, 1874, invented and put to practical use a mechanical contrivance for the disinfection of ships' holds, by injecting, by the means of a blower, the fumes of burning sulphur.

A similar apparatus had been used by the sugar refiners for the bleaching of brown sugar and syrups, and also for influencing the process of fermentation by the injection into saccharine liquids of sulphurous anhydride.

The essential part of the disinfecting process of Dr. Perry was the forcing of the product of the combustion of burning sulphur, namely, sulphurous anhydride gas, SO_2 , into the hold and various compartments of a ship. Previous to the adoption of this method, the hold of a ship, as well as the cargo, the cabins and forecastles, were fumigated by burning sulphur in iron pots. It had been well established by the experience of many sanitarians, at various quarantine establishments and in various hospitals for the treatment of infectious diseases, that this was an effective means of practicing sulphurous acid disinfection.

tion. The only point which appeared to be in favor of the new method was that it apparently required less time for the accomplishment of the same results. In the *New Orleans Medical and Surgical Journal* for January, 1874, is an article by Dr. Perry, entitled, "Quarantine without Obstruction to Commerce," which had been read before the American Public Health Association, and from which the following is quoted :

"I think that time, as an element of quarantine, is the least to be depended on, the most oppressive to commerce, the most costly and at the same time the least effective. . . . The disease germs may occupy any part of the vessel or cargo, and, to be effective, the disinfectant should reach every part of the vessel, every crevice of the cargo. This can only be done in a cheap, quick and thorough manner, by the use of gaseous or volatile disinfectants, applied by a special apparatus, which I will describe. This method will perfectly destroy all disease germs, and can be performed in four to six hours, and will detain infected vessels less than one day.

"The apparatus consists of one or more force-blowing machines, put in motion by steam power, which are connected with a furnace for generating sulphurous acid gas, with an apparatus for impregnating air with carbolic acid vapor, and a furnace for producing heated air. The cost of the apparatus would not exceed \$3,000 or \$4,000. It would be placed either on a wharf, to which vessels to be disinfected could be towed, or it could be placed on a small steamboat."

In the same *Journal* for January, 1875, is a "Special Report of Quarantine Operations at the Mississippi Station, 1874," by Dr. Perry. The following is quoted from it :

"Soon after being assigned to quaran-

tine duty, apparatus was prepared to carry out my ideas in regard to the disinfection of vessels. This apparatus was brought into working order June 20th, 1874. It consisted of a sheet-iron cylinder, three feet in diameter, with numerous adjustable air-holes near the base; into this was put a charge of 30 to 100 pounds of sulphur, which was lighted by a few burning shavings; an 8-inch iron pipe connected the upper part of this sulphur-burner with the entrance opening of a No. 2 Sturtevant fan-blower; to the outlet was connected a short upright iron (8-inch) pipe, and to this was fastened an 8-inch rubber hose. The fan of the blower was put in motion by three pulleys of increasing speed and made 2,500 revolutions per minute; the main driving pulley was turned with a crank by two men. The whole apparatus was mounted on a small, stout flatboat, which was towed to the vessel lying at anchor near the quarantine station, the fire lighted and the blower not started until the shavings had entirely burned out and the sparks had ceased; one end of the rubber pipe was then connected to the lower outlet and the other end was introduced into the vessel."

The details of Dr. Perry's contrivance and those of the apparatus now in operation at the Mississippi Quarantine Station, 1887, are essentially the same, with the exception of the use of steam for the propulsion of the wind-power or blower.

The apparatus of Dr. Perry was used up to the close of 1879, and during the period extending from its introduction, in 1874, to this latter period, cases of yellow fever were reported in New Orleans in 1874, 1875 and in 1876; and in 1878 occurred the great yellow fever epidemic which spread such terror throughout the Valley.

It was evident from these facts that mere fumigation with sulphurous anhydride, in the absence of other sanitary measures, and proper detention, was not sufficient to protect New Orleans from the introduction of yellow fever.

Upon the reorganization of the Board of Health of the State of Louisiana, in 1880, I found the Mississippi Quarantine Station in need of a new wharf and extensive repairs of the fever hospital, small pox hospital, physicians' and boatmen's quarters and of new boats. The apparatus of Dr. Perry was practically useless; the iron cylinder burned out, and the flatboat was in a rotten and leaky condition. I caused to be constructed a disinfecting apparatus, with a strong blower, for propelling the sulphurous anhydride, and the necessary iron furnace for burning the sulphur, at an actual cost of \$249.09.

The intention was to place this upon a steam-tug and operate it, and move it from ship to ship by means of steam. (See Report of Joseph Jones, M.D., President of the Board of Health of the State of Louisiana for 1880, page 18.)

Large expenditures (over \$12,000) were required for the necessary repairs, and, in addition to this, three of the most wealthy and powerful shipping corporations were in open rebellion against the quarantine laws of Louisiana.

During the entire period of my term of service I was compelled to conduct a suit in court against Morgan's Steamship and Texas Railroad Company, which was represented during a considerable portion of the time, extending from April, 1880, to April, 1884, by Mr. Chas. Whitney, President of the New Orleans Auxiliary Sanitary Association.

The only meeting of the Louisiana State Legislature which occurred during this period was embraced by the enemies of quarantine, led by the friends and

agents of the President of the New Orleans Auxiliary Sanitary Association, to array the Legislature against the State Board of Health and defeat the quarantine laws of Louisiana, and to declare them unconstitutional, null and void.

Under such circumstances, and pressed with enemies on all sides, and with diminished revenues, the Board of Health was unable to command the necessary funds for the employment of steam-tugs and crews for the rapid and thorough disinfection of vessels by the proper apparatus.

Nevertheless, it has been shown that, under all these difficulties, the officers of the Board inspected, and, whenever necessary, fumigated and disinfected 10,000 vessels, manned by over 150,000 seamen, and not only effectually excluded yellow fever from New Orleans and the Valley of the Mississippi, but finally, after a severe battle of four years' duration, vindicated the quarantine laws of Louisiana before the Supreme Court of the State. In 1884 the present mechanical service for disinfecting ships by sulphurous acid was proposed by the succeeding President of the Board of Health, which has been made efficient by a legislative appropriation of \$30,000.

The principle of Dr. Perry's contrivance was precisely the same as that of the apparatus used at the Mississippi station in 1885 and 1886, but he was under the necessity of operating his fan by hand-power, for want of funds since supplied by the General Assembly of the State. The method practiced with infected ships (1880-'84) consisted of the following measures :

1. Discharge of cargo.
2. Thorough cleansing of the ship, including discharge of bilge-water and washing out with a solution composed most generally of 50 pounds of cop-

peras and 5 gallons of carbolic acid (Calvert's No. 5) dissolved in 50 gallons of water. A similar solution was employed in the disinfection of ballast and cleansing of wood-work, decks, etc.

3. Fumigation with sulphur. Iron pots were filled with sulphur, which were lowered into the hold and placed in all the compartments of the ship. The pots rested in iron pans of water, so as to avoid all risks from fire. The sulphur was then ignited and all openings closed. The sulphur was allowed to burn until the oxygen was consumed and naught remained but sulphurous anhydride and nitrogen. In infected ships the fumigation was repeated during successive days as often as deemed necessary.

The following results are worthy of notice :

(a) All vermin were destroyed upon the ships thus treated.

(b) No accident from fire occurred during four years.

(c) No case of yellow fever was traced in New Orleans to the cargo of a ship thus fumigated.

4. Coffee vessels from Rio de Janeiro, Havana and Vera Cruz, during the prevalence of yellow fever, discharged their cargoes into the large brick Government warehouse at the Mississippi Quarantine Station, and were subjected to thorough fumigation by sulphurous acid gas. The discharge of the cargoes from infected vessels was made by acclimated men who had previously had the yellow fever.

5. When deemed necessary, the large coffee warehouses in New Orleans were subjected to sulphuric acid fumigation. These stringent measures appeared to have been necessitated by the prevalence of yellow fever at Rio de Janeiro, Havana and Vera Cruz, and also to allay public alarm. The Valley was still agitated by the remembrance of the

terrible epidemic of 1878, which had carried consternation and desolation far into the interior of the continent. The method invented and put into practice in 1874, by Dr. Perry, is more rapid in its action than the old method; but it is only adapted to those ports and quarantine establishments which are able to endure the expense of the construction of the apparatus and its operation by steam.

Under the old method it is possible, at a small outlay and with a few men, to fumigate several ships and vesse's at the same time.

Any quarantine station, however small, can thoroughly and effectually disinfect vessels, however large or small, by the old method, which is in like manner adapted to any vessel or ship, large or small, in any port and under any circumstances. In the present condition of commerce, therefore, the new method cannot wholly displace the old method of sulphurous acid fumigation.

Germicide Properties of SO₂.—One pound of sulphur, when burned, produces 11.7 cubic feet of sulphur dioxide gas. The aqueous solution of this gas contains sulphurous acid.

Baxter's experiments show that it is the most potent volatile disinfectant known, and as it is very soluble, and is little affected by the presence of albumen, it is also powerful in the disinfection of liquids. It destroys sulphuretted hydrogen, thus $\text{SO}_2 + 2\text{H}_2\text{S} = 2\text{H}_2\text{O} + \text{S}_3$, and combines with ammonia. This disinfectant forms sulphites, and is a reducing or a deoxidizing agent in the first place, for it unites with the oxygen of many compounds to form sulphuric acid, but it may give up oxygen, and when mixed with much vegetable matter, the sulphur may come off as sulphuretted hydrogen. Sulphur dioxide and sulphurous acid and chlorine and per-

manganate of potassium mutually destroy each other, and therefore should not be used together. Sulphur dioxide destroys the activity of dry vaccine on points very rapidly, and even when much diluted stops the amœboid movements of living cells, kills vibrios, and acts deleteriously on vegetation. A virulent liquid cannot be regarded as certainly and completely disinfected by sulphur dioxide unless it has been rendered permanently and strongly acid. The greater solubility of this agent renders it, *ceteris paribus*, preferable to chlorine or carbolic acid for the disinfection of liquid media. (Baxter.)

According to Baxter's experiments, a larger percentage of sulphur dioxide than of carbolic acid is required for the disinfection of the virus of infective inflammation, but a smaller percentage for other contagia. Sulphur dioxide preserves meat and other substances when in closed vessels for very long periods. The power of sulphurous acid gas to destroy the virulence of vaccine virus has been demonstrated by several experiments. Ten minutes' exposure in an atmosphere saturated with sulphurous anhydride vapor was found by both Baxter and Dougall to neutralize the virulence of vaccine dried upon ivory points. Experiments made by Dr. George M. Sternberg, in 1878, showed that liquid vaccine is rendered inactive by exposure for four hours to sulphur dioxide in the proportion of five volumes to one thousand of air. In experiments with dried virus upon ivory points, made in 1880 by the same observer, it was found that virulence was destroyed by six hours' exposure in an atmosphere containing 1 p. c. of this gas. Baxter and Vallin have tested the disinfecting power of sulphur dioxide upon the virus of glanders. Baxter found that four parts to one thousand

in solution destroyed the virulence of material obtained from nostrils, rubbed up in water from the lungs of an animal with glanders.

Vallin experimented with virulent pus from an abscess, obtained from a patient with glanders in the Hospital of Val-de-gras. This pus was passed, by inoculation, into Guinea-pigs and other animals, to produce the characteristic lesions of glanders. Some of this pus, placed in a watch glass, was exposed for twelve hours to sulphur dioxide generated by burning two grammes of sulphur in a box having a capacity of 100 litres (equal to 14 volumes of SO_2 to 1000 volumes of air). Disinfection was complete, as proved by inoculation.

Dr. Klein, in 1884, has shown that swine fever can be communicated to healthy pigs, through the air, by placing them in the same stable with diseased animals, but so separated from them that no bodily contact can take place between the diseased and healthy; and that this could certainly be prevented by the presence of chlorine in the air of the stable. Dr. Klein made similar experiments with sulphurous acid gas. It was found that when an animal seriously affected with swine fever was used as a disease germ, healthy animals introduced into the same stable with it contracted the disease and died of it, notwithstanding that the air of the stable was impregnated with sulphurous acid. But when the same experiment was repeated with an animal affected with a mild form and free from the severe pulmonary symptoms which in the other case accompanied it, no infection took place.

It must therefore be determined by further experiments how far sulphurous dioxide is capable of preventing the spread of contagion among living animals. (Fourteenth Annual Report of the Local Government Board, 1884-'85, pp. 183-187, London, 1885.)

A CASE OF INTESTINAL OBSTRUCTION.

By M. W. GIBSON, M.D., Taylorsville, N. C.

On December 26th Mrs. L. was taken suddenly with severe pains in her bowels. I saw her in about two hours after she was first taken. I gave her $\frac{1}{4}$ grain of morphia sulphate hypodermatically, which soon gave her relief. I then gave her a 10-grain dose of calomel.

The next day, December 27th, her bowels were moved twice very slightly. About 11 o'clock p. m. of the same day, she began to suffer again as she did when first taken.

I saw her at 2 a. m. of the same night, and gave her another hypodermic of morphia. I then had the nurse to give her a large enema of hot water without any results.

At 11 a. m. of the 28th stercoraceous vomiting came on, which satisfied me that we had an obstructed bowel of some character to deal with.

Dr. R. B. Killian having been called in, we introduced a long rectal tube and gave the enemata through that with hips elevated. We also used glycerine per rectum, but all to no purpose.

Friday, the 29th, no better; bowels tympanitic, with stercoraceous vomiting becoming more and more frequent. So, at the request of the patient and with the consent of the family, we decided to do laparotomy. At 3 $\frac{1}{2}$ p. m. Dr. Watts began the administration of chloroform. As soon as the patient was ready, Dr. Killian, with my assistance, began the operation, making the incision in median line between umbilicus and pubes. The abdominal cavity was found filled with a sanguineous fluid. Two points of obstruction were readily found. A knuckle of the large intestine, at two different points, had slipped through a loop formed by bands of adhesion

(result of a former peritonitis). These bands were severed, the fluid found in the cavity removed, and the incision closed. After putting on a dressing of iodoform and iodoform gauze and bandage, the patient was wrapped in a warm blanket and put to bed with hot bottles.

She reacted from chloroform nicely, and did not experience any nausea therefrom. When the operation was begun pulse was 135 to the minute.

On the morning of the 30th, after having rested well all night without an opiate, pulse had fallen to 115 per minute and temperature normal.

From the 30th up to January 5th temperature and pulse were as follows:

Dec. 31,	Pulse 86;	temperature, 98 4-5.
Jan. 1st,	" 72;	" 99
" 2d,	" 72;	" 98 4 $\frac{1}{2}$ 5.
" 3d,	" 72;	" 99 4-5.
" 4th,	" 80;	" 99
" 5th,	" 72;	" 98 4-5.

Gave an enema on the 3d of January, and had a good movement of the bowels. She had no pain, no nausea nor any unpleasant symptoms from the moment of the operation up to the present.

She was sitting up in ten days, and is now helping with her household duties.

In closing I will only add that the operation was done under the most rigid antisepsis.

THE EFFECTS OF DYNAMITE ON THE EAR.—Autopsies on the 2 victims of the explosion in the Boulevard Magenta show that (1) tympanic ruptures of various forms are produced in the posterior half of the tympanum; (2) otorrhagia is almost absent; (3) it produces no lasting action on the internal ear.—B. M. J.

THE TREATMENT OF POSP-PARTEM HÆMORRHAGE, WITH THE REPORT OF A CASE..

BY FRANK T. MERIWETHER, M.D., U. S. Army.

In reporting the following case, which is one occurring in a large obstetrical practice, I wish to call attention not so much to the not rare condition of postpartem hæmorrhage as to the methods of treating it rationally—and to some rather unique features in the case.

Case: December 12th, 1893, Mrs. S., aged 31 years, 3-para, white, civilian. Her first child was delivered with forceps after thirty hours labor, the perineum being badly torn. The dystocia was from uterine inertia. The labor with the second child was normal. Labor commenced at 4 a. m. December 12th, the pains lasting throughout the day without any progress being made; the cervix being dilated about two inches in diameter. The presentation was R. O. A. At 7 p. m. the head had sunk lower into the pelvis, engaging in the superior strait, though the os was not fully dilated. At 10:40 p. m., the os being fully dilated and the membranes showing no signs of rupturing, I punctured them with a hair-pin rendered aseptic by boiling water. A few expulsive pains followed the escape of the amniotic fluid, but no progress was made, the occiput resting upon the pelvic brim anteriorly. At 12 m., the pains having practically ceased, I sent for Dr. DeLoffre, of the Army, and also for instruments. They arrived at 1:15 a. m., when, Dr. DeLoffre giving chloroform, I applied the forceps, delivering the child in twenty minutes and the placenta immediately afterwards, no pains occurring during these manipulations. Neither the child nor the perineum were injured. Four grains of ergotine were given, though the uterus contracted nicely.

At 2:15, as the pulse was 72 and good and the uterus firm, I left. I had hardly reached my quarters when the husband came in haste, saying the patient was flowing very freely. Giving him instructions to have the nurse massage the abdomen until I arrived, I hastened to the house, arriving at 3:15. The woman was almost completely exsanguinated, pulseless, and apparently sinking rapidly. Respiration was sighing and very shallow. Everything was covered with blood, though she had ceased to flow much, in fact, there was practically no more blood to flow. The uterus reached two inches above the umbilicus and was filled with clots and semi-fluid blood, as was the vagina. I removed these, and, passing the nozzle of a Davidson's syringe into the os, I injected slowly and continuously quite a large amount of hot water, at the same time rubbing the uterus externally and having the nipples titillated. This having no effect, the uterus remaining relaxed and hæmorrhage keeping up, I discarded it and commenced using ice applied around the cervix and through the os. This of itself was perfectly useless, the slight contractions that were noticed being due to the manipulations and bimanual compression. I then tried equal parts of vinegar and water, applied to the internal surface of the uterus. This also seemed to have no effect, the uterus only contracting for a few seconds and relaxing again. I finally gave up everything except the bimanual compression, which controlled the hæmorrhage, though it would re-commence now and then. During this time 1-10 of a grain of ergotine was injected

hypodermatically and 6 grains of ergotine given by the mouth.

The bimanual pressure was kept up without cessation for two hours, when, as the uterus seemed firm, and the patient's pulse returning and being fairly good, I stopped it. Very little hæmorrhage occurred after this, only requiring a thick compress secured by a binder, which crowded the uterus down into the pelvis, at the same time using pressure upon the aorta; 1.5 of a grain of ergotine was then given hypodermatically.

About twenty minutes after stopping the bimanual compression, the patient complained of feeling faint, in fact, saying "she was dying." Her face was blanched and the radial pulse could not be felt. There was no hæmorrhage, however. I had the foot of the bed raised and the pillows removed, when the patient said she felt better, though the pulse could not be felt. I injected hypodermatically 3 grains of quinine bi-sulph., and, having nothing else, I used my hypodermic syringe and needle for injecting a sterilized salt solution. By leaving the needle in the tissues, unscrewing the piston, I could, though it was very tedious, inject my solution.

I injected into the right thigh $\frac{1}{2}$ oz., when, the patient complaining of great pain from its use, I discontinued it. The pulse was now fairly good, and she felt better for about fifteen minutes, when another sinking spell came on. I again inserted my needle and managed to inject 1 oz. in the thigh before being obliged to stop because of the pain. The pulse, however, was not to be felt for fully ten minutes, the respiration being extremely shallow. I had about given up hopes of saving her, but made up my mind to see it through, though it seemed almost cruelty to make an apparently dying woman suffer needlessly. However, as she seemed to react so well,

after another sinking spell twenty minutes later, I gave $\frac{1}{2}$ oz. more of the sterilized salt solution near the former injections. This improved her pulse and looks a great deal. She rested easy for half an hour, when I gave 10 drops of tr. opii. This quieted her restlessness, which was becoming marked. This was about 7:30 a. m., when the pulse was 80 and fairly strong.

At 9:15 a. m. the pulse was 80, the respiration being nearly normal, and the patient both looking and feeling better. During these past three or four hours she was very thirsty, and was given small quantities of milk and water, hot tea, or iced water, as she desired. The further history of the case presents nothing of interest, the temperature not going above normal after the third day. The site of the injections was well in two days.

What I particularly wish to lay stress upon is the necessity of applying at once bimanual compression in these severe cases of post-partem hæmorrhage; not waiting to dally with other hæmostatics, I usually find that in comparatively slight cases of flooding, hot water is certain to check it, but it has been my bad, or good fortune, as you may look at it, to see quite a large number of cases of post-partem hæmorrhage, and in all the severe cases I am certain to have to resort to bimanual compression, everything else being a waste of time.

The ulnar border of the abdominal hand being pressed deeply behind the fundus, the intra-vaginal one being behind the cervix, the entire uterus may be either thrown onto the pubic bone or directly compressed between the hands; at the same time pressure being applied with the ulnar border of the abdominal hand upon the aorta. This always stops the hæmorrhage, and if persisted

in, usually provokes contractions in what would otherwise be an inert uterus.

I also wish to emphasize the fact that, without any instrument but the hypodermic syringe, hypodermoclysis may be practiced. In this case, which was preëminently one for transfusion or the injection of milk, neither of which was feasible for obvious reasons, the injection of a salt solution, only 2 ozs. in all, acted wonderfully. This was certainly an almost lilliputian dose, but its effect was none the less marked. The water was boiled and therefore sterile.

I would also like to call attention to the fallacious idea of the use of ice in these cases. In this case, particularly, I noticed that, though I used large pieces

of ice, it was rapidly melted, and the water coming from it was of a temperature between 50° and 60° F., if not higher—in reality, being nothing but tepid water. To my mind, the observed effect of the introduction of ice into the uterine cavity, causing it to contract, is not so much due to the cold, as to the fact that it is a foreign body. Acting in this way, it is not to be compared with the finger, fingers, or whole hand, if necessary. This, of course, presupposes clean hands. With the hands you have such complete control over the uterus that this method of bimanual compression must be the first and best means of controlling post-partem hæmorrhage.

A NEW METHOD OF EXAMINING THE KIDNEY, ESPECIALLY FOR STONE.

BY CHARLES P. NOBLE, M.D., Surgeon-in-Charge of the Kensington Hospital for Women, Philadelphia.

(Read before the Philadelphia County Medical Society, January 24, 1894.)

I desire to report a short history of the following case, together with an exploratory operation which I performed to enable me to examine her kidney, including the pelvis of the kidney and perhaps one inch of the ureter.

Mrs. T. S., aged 37 years, mother of three children, enjoyed good health until six years ago. Since that time she has been more or less an invalid, and for the past six months she has been absolutely an invalid, unable to attend to her duties. The prominent points in the history are that she has had three well-marked attacks of hæmaturia accompanied by renal colic (so-called); and that, at least twice, she has passed good-sized stones, the last one

coming from the left kidney. In addition to this history of violent seizures of renal colic, she has suffered frequently with milder attacks of paroxysmal pain referred to the region of the right groin, the pain being, perhaps, most acute just above the right trochanter major. Recently these attacks have been of daily occurrence, and have been brought on when she was on her feet. She is usually, but not always, comfortable when in bed, but shortly after any attempts at walking the pains come on. The sexual organs are normal, with the exception of a trifling tear in the perineum. The urine has been examined many times and has a very uniform composition. Its specific gravity

has varied between 1020, 1013 and 1018; it is acid and contains pus, bladder epithelium and ureteral epithelium, but none from the pelvis of the kidney. The urine from each kidney has been examined separately—the urine being obtained by means of the ureteral catheter. Examined in this way, it has been found that the urine from each kidney is much the same, the pathological elements it contains being somewhat more marked on the right side. This difference, however, was distinctly marked with reference to the two sides. The urine from the left kidney has always flowed through the ureteral catheter freely and regularly; that from the right kidney has not done so. Upon two occasions the ureteral catheter remained in position upwards of twenty minutes, and not more than one or two drops of urine flowed out. Upon another occasion, after waiting thirty minutes with the same result, suddenly 120 minims poured out.

Taking all the facts of the case into consideration, the conclusion seemed fair that there was a stone in the right ureter, and that probably this was in the pelvis of the right kidney. Several attempts were made, both by Dr. Howard A. Kelly and myself, to pass a ureteral sound along the ureter toward the kidney. It was not possible to make a sound reach above the brim of the pelvis. It was therefore proposed that an incision be made in the loin for the purpose of examining the kidney and the upper portion of the ureter from above.

My experience in performing nephrorrhaphy for movable kidney after the technique of Dr. Edebohls, has taught me the facility with which a *movable kidney* can be drawn out through an incision in the loin. So far as I know, no one has ever treated a non-movable

kidney in this way. It occurred to me that this might be feasible, and that, at all events, an attempt judiciously made could hardly be a source of danger.

Accordingly, on December 12th, I made the usual incision in the loin down to and through the peri-renal fat, exposing the lower end of the kidney. With the index-finger the kidney was then separated from its connective-tissue attachments and gradually drawn down into and out through the wound, so that it was entirely outside. It was now a very simple matter to explore the kidney by thumb-and-finger pressure, and to make certain that it was in a normal condition. It was equally easy to examine the pelvis of the kidney and to determine that this contained no stone. Perhaps one inch of the ureter also was within reach.

As nothing abnormal could be felt, the kidney was replaced within the abdomen and the incision was sutured in the usual way—buried silkworm-gut sutures being placed in the muscular layer, and superficial silkworm-gut sutures in the skin. No unfavorable reaction followed this operation, and so far as the operation itself was concerned, the patient made an uninterrupted recovery. Unfortunately, the operation has produced no effect whatever on the symptoms, which are the same now as before it was done.

I report the case simply to bring before you this method of examining the kidney. From my experience in this case and in cases of movable kidney, I believe it will be a simple and safe matter in the hands of a skilful surgeon, who has had some experience in kidney work, to remove through an incision in the loin all non-suppurating kidneys having approximately the normal size, for the purpose of a careful examination. The procedure is certainly not

one of much gravity, and when done under the conditions laid down should have no mortality. Tentatively I would recommend the adoption of this method of exploring the kidney whenever the symptoms point to the presence of stone in the kidney or its pelvis, and when these symptoms are of sufficient gravity, to invalid the patient. I feel confident that, as compared with the ordinary method of exploring the kidney through the depths of the incision in the loin, the kidney itself being largely or wholly above the level of the ribs, and imperfectly palpated because of its movability,

or examined by means of a puncture with an exploring needle, that there can be no question of the superiority of the method proposed and herewith reported.

Upon theoretical grounds this procedure would not be applicable in cases of abscess of the kidney. Under these conditions, supposedly, the kidney would be fixed, and not easily separated from its connective-tissue bed. Moreover, it would be enlarged, and, in addition to this, there would be the risk of rupturing the pus sac, perhaps inadvertently, into the peritoneal cavity.

Selected Papers.

TREATMENT OF SYPHILIS.

BY HENRY H. MORTON, M.D.

In taking up for consideration the subject of the treatment of syphilis, it may be interesting to notice the results where no specific medication is given.

The experiment has been tried of watching the course of the disease, in syphilitic patients, through various stages, without administering mercury or iodide of potash. These observations demonstrated that the lesions in many of the cases showed a definite tendency to recover, but with far less rapidity than in similar cases under treatment. In others, however, the lesions did not disappear till specific treatment was begun. In the light of this experience we may say that syphilis in certain individuals is a self-limited disease, that in others it tends to become chronic, with a marked tendency to

relapses, that all cases are benefited and many cured by treatment.

The specific medicinal treatment of syphilis consists in the administration of mercury or iodide of potash, depending upon the stage of the disease and the character of the lesions.

The first question which arises is, How soon should the administration of mercury be commenced? The practice has varied with different physicians, some using it as soon as the initial lesion is seen, others waiting until the secondary rash appears.

It is now known to be impossible to abort the disease by the early administration of a mercurial, and in Vienna, where cases have been treated in this way, Dr. Ehrmann states that the effect of the administration of a mercurial before the rash appears, is to postpone

its appearance for weeks or months, and that it has seemed to him that cases treated in that way ran a less favorable course and were more subject to grave tertiary lesions than the others which were treated differently.

It may be stated as a general rule that the administration of mercury should not be begun until the appearance of the eruption, or at least until an absolute diagnosis of syphilis has been made.

The explanation of the curative action of mercury is still a matter of doubt. We know that in small doses it is a tonic, increasing the number of red-blood corpuscles, while in large doses it destroys them, but that fact is not sufficient to explain its action in syphilis. It is highly probable that its beneficial effects are due to its germ-destroying capabilities.

The methods of administration are numerous, depending upon the custom of the country or the necessities of the case.

Inducing a high degree of salivation intentionally and with rapidity is no longer in vogue, aside from the unpleasant effects of salivation, more benefit is derived from the administration of moderate doses of mercury, either continuously or intermittingly, for a number of months.

The so-called intermittent plan of treatment consists in carrying the mercurial preparation which may be selected to the point of toleration, as shown by slight sponginess and swelling of the gums and a coppery taste in the mouth, and continuing for two to three months. The treatment is then stopped for two months and begun again. Intermissions alternating with active treatment are kept up for from two to four years.

The preparations of mercury which

may be used are the bichloride or protiodide and calomel.

The method which was most used in this country, and which seems to give the best results, besides being convenient and easily employed, is the so-called tonic treatment of Dr. Keyes. He selects the protiodide pill, beginning with three a day and increasing until griping and diarrhœa are produced. The full dose is the amount which can be given just short of producing these symptoms. The full dose is continued until the disappearance of the rash and mucous patches, when it is reduced by one-half. The patient continues with this half dose unless a relapse occurs, in which case he takes his full dose till the symptoms have again disappeared; he then returns to the half dose, which he continues to the end of his treatment, unless another relapse takes place.

Medication is continued for a period varying from two and a half to three years.

Patients treated in this way are almost entirely free from the serious later lesions of bones, nerves and viscera.

J. William White and Taylor suggest that, in order to obtain the full benefit from a mercurial course, it is necessary that the gums should show the constitutional effects of the drug by slight increase of salivary flow, sponginess and tenderness.

In some cases abnormal irritability of the intestinal tract will produce a diarrhœa and prevent the absorption of a quantity of protiodide of mercury sufficient to produce these symptoms. In other cases, although apparently well tolerated, the long-continued use of the protiodide may interfere with its proper absorption after a time. In order to obviate this, White stops his internal medication after three months and directs his patient to use inunctions for

two weeks, thus giving the stomach complete rest. The treatment then alternates between inunctions and internal medication for a period of two years, after which time he uses iodide of potash.

The plan of treatment by the inunction of mercurial ointment has advantages, in certain cases, over every other method. Where a prompt and decided effect is desired, as in those instances where an important organ, the eye or brain, for example, is threatened with destruction, the disease can be controlled by inunction more quickly and surely than in any other way. In gummata of important organs it is also necessary to combine iodide of potash in large doses, even as high as 500 grains per diem, with the mercury, and the combination of the two therapeutic agents will act favorably when either used alone would be too slow to be effective.

The remedy is applied by taking a piece of mercurial ointment of the size of a walnut and rubbing it into the skin on successive days, beginning on the first day with the flexures of the knees, on the second day the inner part of the thigh is rubbed, on the third the abdomen and breast, on the fourth the arms, and on the fifth the forearms. The patient takes a bath on the sixth day and begins with the same routine again on the seventh day.

In an ordinary case of syphilis treated in this way a sufficient number of inunctions are made to cause the disappearance of the rash, and other courses of inunction are made at intervals during the progress of the disease.

In Germany and Austria the inunction plan is the routine method of treatment for most cases of syphilis, its chief advantage being that it acts promptly, and that the stomach is not disturbed,

thus allowing the patient to assimilate the maximum quantity of food.

The mercury is deposited in the follicles of the skin and can be found in the urine for months after the inunctions have ceased. The patient is thus practically subjected to the continuous plan of mercurial treatment.

Fumigations of calomel are a useful adjunct to the internal administration of mercury and easy of application. The patient is wrapped in a blanket and seated on a cane-bottomed chair; a pan of boiling water is placed under the chair and the patient is steamed a quarter of an hour. Thirty grains of calomel are then fumigated on a tin stand over a spirit-lamp under the chair, and the patient is surrounded by the fumes half an hour. Fumigation is employed once a day until the gums are touched and then once in two to four days.

It is particularly useful to supplement the internal treatment in the cases of extensive ulcerating, suppurating early lesions. In instances where I have used it, I have observed that the lesions upon the body which were exposed to the fumes were healed much more rapidly than those on the face, which, of course, were left free.

The hypodermic injection of mercury, as originated by Lewin, although efficacious, is open to the objections of the pain of the needle puncture and the danger of abscess, and although used in some German clinics, it has not found much favor in this country.

The administration of mercury, although carefully observed, is often attended with unpleasant consequences, the most frequent of which is salivation. This may come from a small dose, and I believe that many of these cases may be explained by a condition of functional inactivity of the liver. Griping and purging often follow the use of

small doses of protiodide, and these cases will generally bear the bichloride of mercury quite well.

A certain class of patients show that their dosage is extreme by anæmia, general malaise and debility. It is often a difficult question to decide whether this condition is due to the disease or the drug. When dependent upon the administration of mercury the dose must, of course, be lessened.

Iodide of potash is of great importance in the treatment of late lesions, as mercury in the early stages of syphilis.

Its action is to cause the absorption and disappearance of the growths made up of the small, round-celled, new formations in the form of diffuse infiltration or gummata, whether situated in the skin, bones, membranes, arteries or viscera. It also causes to be set free any mercury which may be deposited in the tissues of the body.

The iodides have but little curative agency in the treatment of early syphilis, and even when used later in the disease it is necessary that mercury should be given either before or afterwards in order to prevent a relapse.

The dosage of iodide of potash varies from 15 grains to 2 ozs. per diem, and a saturated solution is a convenient form for its administration, beginning with 10 to 20 grains at a dose, and rapidly increasing until the lesions begin to disappear. The only rule for the size of the dose is the effect attained, and while in one individual 30 grains a day may be enough, another patient with a vital organ badly damaged may require an ounce or more continued for days until the lesion has disappeared. As already stated, the rapidity and certainty of iodides in grave visceral disease are greatly increased by using mercury at the same time, preferably by inunction.

When iodide of potash disagrees with the stomach it will be better tolerated when given in a small quantity of milk which has been coagulated by Fairchild's essence of pepsin.

Dr. Keyes has used it per rectum dissolved in beef tea, but the rectum soon becomes intolerant and rejects it. Drinking one or two goblets of warm water afterwards will sometimes enable patients to retain it, or it may be given in starch water. In cases where the idiosyncrasy is so marked that it cannot be given at all, mercury by inunction may be used or the preparation known as Zittmann's decoction, which is composed of a number of vegetable bitters and a small quantity of mercury. In certain intractable cases of syphilis which have not responded to mercury and iodides, this preparation has done good service, and a trial should always be made of it before pronouncing a case hopeless.

Frequent unpleasant occurrences resulting from the use of iodides are coryza and an eruption which may be acneform, erythematous, bullous, or purpuric, or a general weakness and malaise. These symptoms are less apt to occur if the kidneys eliminate well, and, indeed, it is an important point in the administration of the iodides when given in large doses to ensure an abundant secretion from the kidneys by administering diuretics if necessary. Keyes considers an increased flow of urine as an indication that the tolerance of the patient will be great and the good effects of the drug well marked.

The mixed treatment consists in the administration of mercury combined with iodide of potash in moderate doses.

It is used to produce the disappearance of the intermediary lesions of syphilis occurring six months or more after inoculation.

Many patients, especially those treated

in private practice, never show any further symptoms after the disappearance of the secondary eruption, and the exhibition of iodides as a routine plan of treatment is a measure of individual preference.

J. William White states that after the second year there is an excess of cell-growth and accumulation, and as stimulation of the lymphatics becomes the prime indication, iodide meets it better than any other drug. He accordingly gives iodide of potash in moderate doses for a period of six months after two years of mercurial treatment, even though no lesions are to be observed.

In the cases which present themselves for advice at hospitals, inattention to treatment and a bad condition of health are apt to lead to relapses.

The fissures and ulcerations of the mouth, scaly and tubercular eruptions, superficial ulcerations of the skin and larynx are not of the purely gummatous type calling for iodides, and yet mercury alone would be insufficient to relieve them. Under the mixed treatment they disappear with gratifying rapidity. The majority of cases when the mixed treatment is indicated, demand tonics as well, for we may consider the expression of the syphilitic poison as an indication of depreciated resisting power.

I think that in speaking of these cod-liver oil should be placed in the front rank. It is especially applicable to those patients who have become greatly reduced in weight where the indication is to improve nutrition and make fat, and cases of this character will be markedly benefited by it.

In persons in which the disease has diminished the nervous energy, and consequently the blood-making capabilities of the body, the combination of the mixed treatment with iron, arsenic and strychnia, as advised by Dr. Sherwell, is

most useful. Erythroxyton coca, used with mercury and iodide, is highly recommended by Dr. Taylor for its properties as a restorative of the vital powers in broken-down persons suffering with the results of the syphilitic cachexia, and as a substitute for alcohol in intemperate individuals.

As syphilis is a depressing disease, destroying the red-blood corpuscles, it is highly important to place our patient in the best hygienic surroundings in order that he may successfully cope with its debilitating effects.

The condition of food, dwellings, work, clothing, tobacco and stimulants should be inquired into and appropriate advice given.

The state of the mouth should be carefully looked after before beginning a mercurial course. Teeth with caries, irregular edges and deposits of tartar about the roots, will show evidences of pytalism much sooner than if they were in a healthy condition.

With regard to the question of climate, it has been observed, particularly in the case of sailors, that patients do better in a warm than in a cold climate.

The hot springs of Arkansas have acquired a good deal of renown in the treatment of cases of syphilis, both recent and old.

The water, which contains but a small proportion of mineral substance, has the peculiarity of having a temperature of 140° as it comes from the earth, and has no direct influence upon the disease.

Patients while drinking it, through its diuretic and diaphoretic action, are enabled to tolerate larger doses of mercury and iodides, and cases of inveterate syphilis who go there are benefited because their tolerance is increased, whereas if they remained at home they could not take sufficiently large doses to control their symptoms.

The local treatment of syphilides, as a rule, is not necessary, since internal medication will cause their disappearance. This will be materially hastened in many cases by the application of a mercurial ointment or plaster, and is particularly desirable in lesions situated upon the face. The preparations used for this purpose are the white precipitate, blue ointment, oleate of mercury and mercurial plaster. The mercurial plaster as used by Pick and modified by Klotz, consists of equal parts of mercurial plaster and the compound soap plaster, containing Diachylon ointment and soap plaster of each 40 parts, vaseline 15 parts, and salicylic acid 5 parts, and is a very convenient local application for all the syphilides.

In certain cases of long-standing and obstinate tubercular or ulcerative lesions, internal treatment is greatly aided by local applications.

Moist papules should be kept dry with a dusting powder of calomel and covered with absorbent cotton.

A patient with ulcers of the mouth should use a mouth-wash of chlorate of potash, myrrh and carbolic acid, or the ordinary black wash consisting of calomel and lime-water, as suggested by Harrison Allen, has worked well in my hands. In addition the ulcers should be touched with acid nitrate of mercury or nitrate of silver.

Old ulcers of the leg which do not heal under the use of iodides in excess, or the mixed treatment, may need cutting, strapping, incision of the edges, or the application of balsam Peru in combination with a local mercurial.

The initial lesion or chancre requires but little treatment aside from cleanliness. An absorbent powder of calomel, aristol, or iodoform, is usually sufficient.

In cases where the induration is excessive, its absorption is hastened by

the mercurial plaster, but more or less induration usually remains until the patient has been subjected to internal mercurial treatment for some time.

DISCUSSION.

Dr. H. W. Rand: Experience, based upon hospital and dispensary practice, and many of our statistics are founded on that, is not always reliable. That which is most valuable is gained by observation of the better class of private patients, extending over a period of years. In those cases in which I have begun the exhibition of moderate doses of mercury as soon as the diagnosis of chancre has been made, they have invariably done better, had fewer lesions, and the disease has been far milder and more manageable than in those cases in which the administration of the drug has of necessity been delayed until some secondary manifestation occurred to render the diagnosis certain.

I do not know as Dr. Morton spoke of the iodide of calcium as a substitute for iodide of potassium. I have used it during the last year in somewhat smaller doses than the potassium, and with excellent results, especially in strumous subjects, where the calcium seems to be much more serviceable than potassium. The chloride of gold and soda, where the mercury is not borne, has often been productive of good.

In regard to prognosis, we cannot say to any case, however faithful he may be as to treatment, that he will have no subsequent development. We can say that the majority of fairly healthy subjects who take a proper course of specific, and, perhaps, tonic medication, extending over a period of two or two and a half years—and in severe cases somewhat longer—will not only be capable later of procreating healthy children, but will be free thereafter from any

serious manifestation of the disease. In regard to the dosage of a mercurial, I have never found it necessary to produce its specific effects upon the gums except in those cases where some vital organ, as the brain, or some other important organ, as the eye, is threatened. In these cases I believe we are not only justified, but called upon, to give mercury to the point of toleration, not to salivation, but to the point of producing sponginess of the gums. I believe in all other cases the best results are ob-

tained by a long-continued administration of what may be called a tonic dose.

The tannate of mercury has not received the attention it deserves. It will be tolerated in many cases where the protiodide and bichloride disagree, and I think it is one of our useful remedies. It will salivate, contrary to what was claimed for it when it was first introduced, but withal it has seemed to be a manageable and useful preparation.—*Brooklyn Medical Journal.*

Society Reports.

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

HELD IN CHICAGO, September 12, 13 and 14, 1893.

Augustin H. Goelet, M.D., the President, delivered the Annual Address, taking for his subject "The Influences Governing the Progress of Electro-Therapeutics."

He said that last year, in a spirit of humor, the Association had been referred to as a vigorous infant, but its vigor was readily explained when it was remembered that it boasts of three parents. In the beginning it was predicted that it would never prosper, but would die young—even before the completion of its first dentition. He thought, however, that its present state of health and prosperity was sufficient evidence that it was destined to a long life of great usefulness and a ripe old age. He thought the inauguration of this Association marked an event in medicine quite as important as any that had occurred within the present century, because it established a recognized po-

sition for an important and long neglected branch of therapeutics. The need of such an Association was quite evident to any one who had attempted to present technical papers upon electrical subjects at other medical societies, where there is usually so much unreasonable opposition to electro-therapeutics that profitable discussion is impossible.

The work thus far accomplished he considered very creditable for so young an organization, particularly as the field is entirely new, and in the beginning involved much uncertainty. He emphasized the fact that the methods adopted must bear investigation and the stamp of scientific reasoning. Results, he said, may be doubted, but methods based upon scientific laws could not be questioned.

Electro-therapeutics must contend with the natural opposition by the pro-

fession to every new inroad upon old and established methods. The fact that it is not more universally employed is due to a want of appreciation and was attributed to restricted medical education and unfamiliarity with electrophysics and electro-physiology. Some of the more progressive of medical schools, he was pleased to observe, were beginning to realize the necessity of teaching this branch of therapeutics. The imperfections of past methods, which were certainly unscientific, likewise operated greatly against a proper appreciation of modern electro-therapeutics, and its successful accomplishment depended greatly upon the character of the work done by the Association, and upon the personality of its members.

The progressive spirit of the Association was well shown by the fact that there were no less than six committees charged with investigating scientific questions having an important bearing upon the different branches of the subject. He regarded the admission of other scientists from the electrical world to membership in the Association a step in the right direction, and further evidence of its progressive nature.

He recalled the fact that within the past five years scarcely a year had elapsed without the development of some new and important feature involving the application of electricity in some one of its forms. As an instance of this, he cited the development of metallic electrolysis and its extensive application; also the alternating simouisdal current of D'Arsonval and the capabilities of the interrupted induced current obtainable from the modern apparatus.

The important improvements that have been made within the past few years in induction apparatus, whereby

an increased frequency of interruption and an increased electromotive force of the current was obtained, he thought deserved especial mention. The possibilities of this current, from a therapeutic standpoint, are quite beyond the conception of any one who has not had a practical clinical experience with it.

The programme of the present meeting gave abundant evidence of the advanced thought and work which have characterized the Association ever since its inception, and it was evident that electro-therapeutics is steadily progressing towards an exact science.

Attention was directed to the fact that, though concerted effort for electro-therapeutics is still young, its influence upon the views prevailing in medicine is already distinctly manifest.

In conclusion, the President declared that by conjoint efforts electro-therapeutics would be brought to that scientific plane which would make its most strenuous opponents their most cordial supporters.

On Electrodes.—Dr. A. Laphorn Smith, of Montreal, read a report of the committee. The committee expressed the opinion that the best ground-work of all electrodes is copper-wire gauze, and that the connection is best made by copper-wire soldered the whole length of the gauze and terminating in a binding post, that known as No. 632, (?) which is largely used by telephone companies throughout the world. Clay was considered the best covering, as it was the only substance which could be rendered moist enough to conduct properly without at the same time soiling the patients' clothing. It should be half an inch thick and of the consistency of putty. Before each application it can be readily cleaned by washing its surface with soapsuds. The back of the electrode is insulated with common table oilcloth.

The committee recommended three sizes of dispersing electrodes, viz: each having a uniform length of one foot, and the width, three, six and nine inches respectively. It was desirable that these sizes should be given in the metric system. For active electrodes to be used with the positive pole the committee naturally selected platinum as the best, its one objection being its first cost. Where the applications are to be made to the surface of the body or to the interior of a cavity like the uterus, carbon is equally good, and for such purposes carbon beads can be threaded on platinum wire. Zinc is also a useful material for intra-uterine galvano-cauterization. It should be connected with the reophore by means of the standard binding post already mentioned. It was recommended that the conducting cords employed in electrotherapeutical work should be of the standard sizes and lengths used by the Bell Telephone Company.

For negative intra-uterine application a Simpson sound made a useful electrode, and its size should be stated according to the French scale. Where the surface of the electrode is necessarily very irregular, its area should be determined by ascertaining how much water it will displace. It will be well for manufacturers to stamp all electrodes with two numbers—one giving the French scale, and the other the displacement of water or the surface of the electrode.

The committee recommended that a standard insulating material be adopted, and that the standard screw should be No. 240 of the American gauge.

All electrodes should be washed with soapsuds after each application, and boiled for five minutes before being used again.

On Investigation of Dr. Newman's Statistics in Urethral Stricture.—The

committee, consisting of Drs. A. H. Goelet, Wm. J. Morton and W. J. Herdman, reported that they had made a very careful and conscientious examination of Dr. Newman's records and statistics and had asked, but unsuccessfully, for the coöperation of certain general surgeons. The committee unanimously agreed that Dr. Newman's statistics fully substantiated the claims he had made.

"Observations on the Treatment of Goitre."

Dr. Charles R. Dickson, of Toronto, read a paper with this title. He now uses Goelet's modification of Apostoli's clay pad, and begins with a current of 10 to 15 m. a. for ten minutes. The treatment is continued on alternate days and the strength of the current gradually increased up to 100 or 120 m. a., although in exceptional cases over 200 m. a. may be used. He considers a strong current applied for a short time preferable to using a weak one for a long time. After the treatment the parts are sponged off with a cold solution of boracic acid. If, after several weeks of this external treatment there is no result, it is proper to resort to puncture. Strict antiseptic precautions are observed, and the puncture is made with a surgeon's needle insulated with several coats of collodion. The puncture should be made, if possible, low down through the isthmus, and during the introduction of the needle the patient should be directed to swallow so that puncture of the larynx may be avoided. The subsequent punctures are all made at the same spot.

In the cystic form the external treatment is of little use. Here the author advises inserting an aspirating needle, drawing off the contents and filling the sac with a solution of salt in boiled water. The object of this is to make

use of an electrode which will fill the deepest recesses of the sac. The aspirating needle is used as an electrode, and after the application the fluid is withdrawn.

In conclusion, the author said that he still maintains that in electricity we have one of the most valuable agents in the treatment of all forms of goitre, and that it is the safest treatment. He had known even external applications of iodine to produce so much œdema that death from asphyxia seemed imminent. Electrical treatment in exceptional cases may have to be extended over a period of two years.

"The Treatment of Dysmenorrhœa by the Galvanic Current."

Dr. A. Laphorn Smith, of Montreal, read a paper on this subject, in which he took the ground that dysmenorrhœa is very commonly due to endometritis, rather than to stenosis of the canal. Thus many cases are not at all relieved by rapid dilatation of the canal unless this procedure is followed by curetting or the application of iodine. From theoretical considerations he had been inclined to believe at first that the method of intrauterine galvanization which he advocated for the relief of dysmenorrhœa, would result in sterility, but further experience has shown this not to be true. Apostoli quotes 30 cases in which pregnancy followed such applications. This important theoretical objection being disposed of, he felt free to urge the adoption of this treatment, as the mild currents employed rendered it both safe and painless. If the uterus be large and the menstrual flow profuse, he would use the positive pole in the uterus; but if the uterus were poorly developed and the flow scanty, then he would prefer the negative pole.

After a careful bimanual examination has excluded pregnancy, and has enabled

the operator to form a correct idea of the condition of the pelvic organs, the vagina should be disinfected with a douche, and a large Simpson sound, curved to correspond with that of the uterine canal, is passed through the flame of an alcohol lamp, cooled and insulated with rubber tubing to within about $2\frac{1}{2}$ inches of its tip. Under the guidance of the finger it is then gently passed into the canal until an obstruction is met with, when a current of about 10 m.a. is turned on. The instrument soon passes on, and after a current of from 20 to 50 m.a. has been allowed to flow for about five minutes, it is gradually reduced and turned off. The sound will then usually almost drop out of itself. A boroglyceride tampon is then inserted in the vagina and the patient allowed to go home. No precautions, such as resting in bed, are considered necessary, and, as a rule, the patient only received the treatment twice a week for from three to six weeks when the second period will usually come on without pain. When the intra-uterine electrode is connected with the negative pole the positive pole consists of a clay abdominal electrode. Where the positive pole is made the active one this pole must be of platinum, carbon or zinc.

DISCUSSION.

Dr. Massey said he could endorse all that the author had said about the simplicity and safety of this treatment. He rarely saw atresia except after the use of very strong currents, or where the operator had neglected to insulate the cervical portion of the electrode. For this purpose he preferred shellac to a rubber tube.

Dr. W. B. Sprague, of Detroit, said he had very rarely failed to relieve dysmenorrhœa by intra-uterine application

of electricity. He preferred to use the negative pole with a current of moderate strength, and so far from producing atresia, he had relieved such as already existed. In this class of cases he never used currents stronger than 15 m.a., and he was inclined to believe that the menstrual pain is due to hypersensitiveness of the nerves rather than to endometritis; for he had relieved the condition by currents so mild that they could hardly be expected to cure an endometritis.

Dr. P. S. Hayes, of Chicago, said he wished to be placed on record as fully endorsing the claims made in the paper.

Dr. Margaret A. Cleaves, of New York, said that after an experience of six or seven years, she could corroborate what had been said in the paper. She thought the dysmenorrhœa was quite as often due to pelvic congestion as to endometritis, and that this explained why it was relieved by such mild currents. A number of her patients had become pregnant within a few months and she did not believe that intra-uterine galvanization caused sterility after the treatment. She greatly preferred leaving an interval of from five to seven days between the treatments.

Dr. Kellogg had found that, although there was no stenosis of the canal, many cases of dysmenorrhœa are associated with vegetations which he believes swell up at the menstrual period, and so produce a temporary obstruction. At any rate, such cases readily yield to applications of 10 to 20 m.a., usually with the positive pole in the uterus. Where the trouble seems to be due to simple hyperæsthesia, he had found the positive pole especially effective. His experience was entirely opposed to the idea

that the treatment prevented pregnancy.

Dr. C. R. Dickson believed with Dr. Cleaves, that dysmenorrhœa is very frequently due to simple pelvic congestion. He was glad to see that operating surgeons were showing a greater disposition than formerly to refer these cases to those who make a specialty of electrotherapeutics.

Dr. Franklin H. Martin sounded a note of warning against recommending such intra-uterine treatment too freely to the general profession. The initial step should be the making of an accurate diagnosis. If the dysmenorrhœa were due to non-development of the uterus, the faradic current of slow vibration would be much more appropriate than the galvanic; if, on the other hand, it were due to tubal or ovarian disease, the galvanic treatment would result disastrously. Where dysmenorrhœa is due to endometritis or stenosis of the canal, positive galvanisms to the interior of the body of the uterus only was indicated.

Dr. Walker said that when the pain was most marked, two or three days previous to the appearance of the flow, he was always very suspicious of the existence of disease of the appendages, and therefore would not resort to galvanic treatment until a careful examination under chloroform had excluded such a condition.

Dr. Smith, in closing the discussion, said that he had taken it for granted that an accurate diagnosis was a prerequisite to safe and successful treatment. Believing, as he did, that in the majority of cases dysmenorrhœa is due to reflex spasm of the fibres of the internal os, brought about by an endometritis, he preferred to apply a mild current *directly* to the internal os.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

NORTH CAROLINA AS A HEALTH RESORT—A TOUR OF INVESTIGATION.

Certain portions of North Carolina, notably the Asheville plateau, are well known to the medical profession the world over as possessing a climate especially adapted to the treatment of certain diseases, but the advantages possessed by other parts are unknown except to a few. The popularity of Asheville began when the people of this and neighboring States, attracted by the beauty of the scenery and its remoteness from the bustle of business, left the school-room and the desk and the counter, and sought rest and recreation among the picturesque hills of Buncombe. The tale of the delightfulness of its climate and the grandeur of its scenery, was carried from person to person and from place to place, until the people of the far North and the

distant West came to enjoy the charms of this "Land of the Sky." Then began to be known its advantages in the treatment of consumption, and physicians came from all parts of the world to make scientific investigation in regard to its climate, and, being well pleased, returned home and sent their patients. At last the enterprising capitalist saw in it a place for investment, and magnificent hotels sprang up and extensive sanatoriums were built, until now that section is one of the most celebrated health resorts in the world. It is only lately that all this has come to pass, and yet the climate and scenery have been there for ages untold.

Although the first white child born in North America was born on North Carolina soil, this State is, in a certain sense, a new State—her unnumbered resources are just beginning to be known. Among the chiefest of these is her delightful climate. From the

sandy shores of Currituck to the rock-bound heights of Cherokee she presents a diversity of climate and soil that will meet the tastes and necessities of all.

For the purpose of investigating the Piedmont and coast sections of the State, a party of medical men, who are connected with some of the leading medical journals of the North, have just made a tour, including in their itinerary the following places: Hendersonville, N. C.; Southern Pines, N. C.; Charlotte, N. C.; Atlanta, Ga.; Athens, Ga.; Clinton, S. C.; Wilmington, N. C.; Raleigh, N. C., and Henderson, N. C. The trip was arranged by, and was under the management of, Dr. W. C. Wile, editor of the *New England Medical Monthly*, and there were in the party representatives of the *New York Polyclinic*, the *Medical Bulletin*, the *Sanitarian*, the *Times and Register*, the Albany, N. Y., *Medical Annals*, the *Medico-Legal Journal* and the *Bridgeport Standard*. At each place the party were met by committees made up from the local profession and other citizens, and were entertained in most hospitable style. They arrived at Wilmington early on the morning of the 20th, and, after breakfast at The Orton, were given a steam down the Cape Fear river for thirty miles, where they enjoyed the views of the old ante-bellum homesteads along the shores, and the historic forts at the mouth of the river. Returning to the city, they were transferred to a special train and carried to Wrightsville, one of Wilmington's suburban sea-side resorts. Here they enjoyed a mid-winter stroll upon the sea-shore and an oyster-roast served in rustic style. After a few plantation songs sung by the negroes for the entertainment of the "Nawthun Gemmun," (this part of the

program was stimulated by some loose coin from the generous pocket of Brother Wile, tossed into the air) a 20-minute run brought the party to the city, where a drive through the more important streets wound up the day's entertainment.

The profession of the Old North State are always glad to have their brethren from the ice-bound North come into our borders and spy out the land. We would be glad to have them make use of our delightful climate in relieving the sufferings of their patients. We regret that their stay was so short this time that they had not full opportunity of becoming thoroughly informed in regard to the true condition of things in the South. Florida is known as the "Land of Flowers," but those who know consider she is not rightly entitled to that distinction, when it is probable that within a radius of ten miles about Wilmington there may be found a greater variety of flowers than the whole State of Florida can afford. Our distinguished guests were given some idea of the mildness of the climate when they sat down to a table adorned with wild flowers from our surrounding fields, and hyacinths and violets, jonquils and japonicas from the gardens within the city. They got some idea of the balminess of the sunny South when, in the middle of bleak February, they could sit upon the open deck of a swift steamer and enjoy without wraps a sail of thirty miles. We would have them tarry with us for weeks that they might drive through our forests of long-leaf pines and breathe in their health-bearing aromas; that they might loiter on our fields and gather the flowers which nature has planted with a lavish hand and which spread their bright petals to delight the eye of man; we would

have them walk upon our streets in the days of December, and in the long Indian Summer of October and November, and bask in the sun-shine which draws one from the confinement of the house and makes him delight to be in the open air; we would have them share with us the other numberless blessings that have been showered upon this favored section, and then go and tell the tale to others. We hope that this visit is only the beginning of a series, and that when these gentlemen come again they will *all* bring their wives and daughters, and not only these, but their sisters, and their cousins and their aunts. We have room for all in our homes and in our hearts, and especially does the NORTH CAROLINA MEDICAL JOURNAL add its voice to the general cry, "Friends, come again!"

THE WILMINGTON CITY HOSPITAL.

Dr. W. W. Lane, Surgeon-in-Charge of this Institution, has just rendered his Annual Report to the Board of Managers. The report shows the work done and the confidence of the people in the Hospital to be increasing. There were admitted during the year ending December 31, 1893, two hundred and fifty-three patients, of which number sixty-two were pay-patients, many of them coming from neighboring counties where hospitals are not sustained. Besides these there were a large number of dispensary patients treated. The character of the operations show that work of as high grade can be, and is, done here as in the more pretentious hospitals of the North. Among the operations we note three celiotomies for cystic degeneration of the ovaries—all recovered; one celiotomy for ruptured uterus—recovery; three amputations of

arm and one at upper third of thigh for compound fractures from rail-road injuries—all recovered; one case of trephining for compound, depressed fracture—death on the twelfth day; one vaginal hysterectomy for cancer—recovery; amputation of breast and extirpation of axillary glands for cancer—recovery; and numerous operations for lacerated cervixes, strictures of urethra and rectum, etc.

A large addition to the hospital has been erected, providing eight private rooms and a special operating room for pay-patients. Very essential improvement has been made in the appointment of the new Matron, of whom the Surgeon-in-Charge speaks in very complimentary terms. The service could still further be greatly improved by providing a hospital ambulance, the use of which is sorely felt. We would also suggest the appointment, each year, from the successful candidates before the Board of Medical Examiners of a physician to be Assistant to the Surgeon-in-Charge, his term of office to be one year, at the expiration of which he would receive a certificate of service and a case of surgical instruments. He would receive no salary, but would live in the Hospital. It would be a great advantage for the Surgeon-in-Charge to have an Assistant on hand in emergency cases, and not have to go on a hunt about town for one. The service would also be a great benefit to the young physician, as he would have to deal with the class of patients and diseases which he would subsequently encounter in his general practice.

SOCIETY PRIZES.

We again remind members of the North Carolina Medical Society that there are two prizes offered for the

coming meeting. One of these is the Duffy Prize, offered for the best essay on *Materia Medica* native in North Carolina. The object of this prize is to bring out more prominently the resources of this State in this line, and to bring to the attention of the profession the great value of many of the plants indigenous to the State. The great prominence given to the numberless new products, which the ingenuity of the chemist is constantly giving to the profession, tends to overshadow and make us forget the old, tried remedies with which the old-time family doctor accomplished so much. The country physician often searches his case for some remedy to meet a condition and fails to find it, while he might, in many instances, go forth into the neighboring fields and forests, and find a remedy which would relieve his patient, though the dose might not be as æsthetic as the elegant elixirs and tablet triturates furnished by the manufacturing pharmacists. The physiological action and great value of our native *Materia Medica* are not sufficiently known.

The second prize is that offered by

the NORTH CAROLINA MEDICAL JOURNAL for the best History of Surgery in North Carolina. The paper read by Dr. Munroe at the last meeting of the Society presented only a faint idea of the important work done by the surgeons of this State. Our able men are too prone to let their lights remain under a bushel, satisfied that they have benefited their patients, but forgetful of the fact that they are injuring, by sins of *omission*, the honor and welfare of the State profession. Dr. Long, of Georgia, was satisfied to relieve the pains of surgical operations in a few cases with the use of ether, and did not herald the great discovery to the world that countless others might reap the advantage of it. As soon, however, as Dr. Morton learned the possibility of surgical anæsthesia, the news was carried to the ends of the earth and the world blessed the man. We are looking for information from papers to be presented to the next meeting of the Society that will surprise even our surgeons themselves, and we hope when data are sought by one who is desiring to prepare a paper on this subject, it will not be denied him.

Reviews and Book Notices.

Annual of the Universal Medical Sciences. A Yearly Report of the Progress of the General Sanitary Sciences Throughout the World. Edited by Chas. E. Sajous, M.D., and Seventy Associate Editors, Assisted by Over Two Hundred Corresponding Editors, Collaborators and Correspondents. In five volumes. The F. A. Davis Co., Philadelphia, 1893.

We welcome the sixth edition of this great work with much pleasure. The

editors of the various departments have worked well and faithfully. Each being eminent in his own department, the matter collected for this work may be accepted as the most valuable that has appeared during the year. The Editor-in-Chief has removed from Philadelphia to Paris, and has added to his staff of assistants some of the most prominent men of Europe. The sixth issue of the Annual well maintains the excellent

features of the preceding issues, and will prove useful in a high degree to those fortunate enough to possess it. Illustrations have been used liberally, and among them we find some very excellent lithographs.

An American Text-Book of Gynecology, Medical and Surgical, for Practitioners and Students. By H. T. Byford, M.D., J. M. Baldy, M.D., Edwin B. Cragin, M.D., J. H. Etheridge, M.D., William Goodell, M.D., Howard A. Kelly, M.D., Florian Krug, M.D., E. E. Montgomery, M.D., Wm. R. Pryor, M.D., George M. Tuttle, M.D. Edited by J. M. Baldy, M.D. With 360 illustrations in text, and 37 colored and half-tone plates. Mr. W. B. Saunders, Philadelphia, 1894. Price, cloth, \$6.00; sheep, \$7.00; one-half Russia, \$8.00. By subscription only.

This magnificent royal octavo volume is the companion to "An American Text-Book of Surgery" and "An American Text-Book of the Theory and Practice of Medicine," which have been before the profession for some months, and have attained marvelous popularity. Those who have seen the volumes on Surgery and Practice have awaited with impatient desire the time when this volume should appear. This work stands easily at the head of all works on Gynecology which have yet appeared in this or any other country. Being the production of a corps of authors, each of whom is regarded the world over as an authority in this branch of medicine, and who are eminent for their care in observation and skill in manipulation, it will rapidly find its place as a text-book in many, if not all, of the more important medical schools of this country. As a reference book for the student and practitioner it has the advantage of expressing on all the subjects contained in its pages the opinions of all those gentlemen whose names appear in the title.

A physician is seldom satisfied with the opinion of only one authority in any very important matter, consequently we find several volumes devoted to this subject upon the shelves of nearly all progressive physicians. The plan adopted in this volume obviates the necessity of such an outlay of money by requiring the physician to purchase only one volume and still have the views of many authors.

The first section is devoted to rules and methods of examination of the pelvic organs, and we regret that the plan of designating the authors of each section, as is done in the other works of this set, is omitted here. The text of this section is illustrated by cuts of the various appliances necessary in the examination of patients and by half-tone plates showing the various postures, both proper and faulty. The section on the Technique of Gynecological Operations is very thorough, and great stress is laid upon the necessity for absolute asepsis, as nearly as it is possible to attain it. "Imperfect technique implies errors of omission or commission on the part of the operator which may prove detrimental to the recovery of the patient, even costing her life. With a perfect technique, therefore, the surgeon is acquitted of personal responsibility as to the result, providing his judgment in electing to operate has been good; while, if his technique is bad, he always stands arraigned before the bar of criticism, and is from time to time directly responsible for the bad results of his work."

The section devoted to Pelvic Inflammations covers 80 pages and is especially clear and exhaustive. The opinions advanced are based on sound reasonings and careful study and are very decided.

Operations are treated of under the different conditions requiring operation,

and are all illustrated by cuts and plates showing the various steps in the operation. These illustrations are nearly all new and serve admirably to make clear the descriptions in the text. Thus, the various operations for hysterectomy, both by the vaginal and abdominal route, are made so plain that any intelligent physician cannot fail to understand the different steps, even if he had never seen the operation performed.

The work is intended as one that can be readily understood by the student and general practitioner, and we feel assured that any one who shall possess a copy will meet many occasions in his practice when he will heartily thank the authors for having placed within his reach such an excellent treatise. The publishers have issued the volume in the same elegant style which characterized the preceding volumes of this set.

New Truths in Ophthalmology, as Developed by G. C. Savage, M.D., Professor of Ophthalmology in the Medical Department of the University of Nashville and Vanderbilt University. Thirty-two Illustrations. Published by the Author. Nashville, Tenn., 1893.

While some of the chapters contained in this volume were written for it especially, the large proportion are reproductions of papers prepared by the author for publication in current journals and society transactions. The most important, as well as most interesting, portion of the volume is the discussion of the action of the oblique muscles and the correction of deficiency in these muscles. The author writes in a very clear style and makes his theories plain and intelligible. Persons interested in this branch of medicine will read this book with much pleasure, and generally with profit. The volume is a square octavo, from the press of the Publishing House

of the Methodist Episcopal Church, South. It is printed on heavy paper, in clear type, and is easily read.

Syllabus of Lectures on the Practice of Surgery, Arranged in Conformity with the American Text-Book of Surgery. By N. Senn, M.D., Ph.D., LL.D., Professor of the Practice of Surgery and Clinical Surgery in Rush Medical College; etc., etc. Mr. W. B. Saunders, Philadelphia. 1894. Price \$2.00.

Arranged by a surgeon in all of whose work carefulness and exactness are conspicuous, and from a text-book which has taken such a strong hold on the profession on account of its excellence, this syllabus will prove of great use to teachers in arranging their lectures, and to students in their class-room work. In shape and size it corresponds to the ordinary note-book used by students, and can be carried with comfort in the pocket.

A Practical Treatise on Nervous Exhaustion (NEURASTHENIA). Its Symptoms, Nature, Sequences and Treatment. By George M. Beard, A.M., M.D. Edited, with Notes and Additions, by A. D. Rockwell, A.M., M.D., Professor of Electro-Therapeutics in the New York Post-Graduate Medical School, etc. Third Edition. Enlarged. Mr. E. B. Treat, New York. 1884. Octavo. 262 pages. Cloth. Price, \$2.75.

The United States is peculiarly the home of this comparatively new disease, and it is therefore to be expected that what we know of it should come from observers on this side the water, and nowhere else can it be studied so well as in New York. The great frequency of the disease, its almost unlimited diversity of symptoms, and the intolerable misery it brings to its unfortunate victims, make it one of the most important maladies with which the physician

who practises among the higher classes has to deal. His ability to manage these cases well, in some considerable measure, influence his success as a practitioner. The volume before us will materially aid the reader in these cases, for the author has, in a most practical manner, gone over the symptomatology in its varied phases, and has given equal attention to the subject of treatment. Dr. Rockwell has spent many years in, and devoted close attention to, the study of neurasthenia, and in this new edition has incorporated in it all the additional light that has been thrown upon the disease since the publication of the second edition.

How to Use the Forceps. With an Introductory Account of the Female Pelvis and of the Mechanism of Delivery. By Henry G. Landis, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in Starling Medical College, Columbus, O. Revised and Enlarged by Charles H. Bushong, M.D., New York. Illustrated. Mr. E. B. Treat, New York. 1894. Octavo; 203 pages. Price, \$1.75.

The volume is divided into three parts, the first of which discusses the formation of the pelvis, the propelling forces, the child in its relation to these and the mechanism of labor. The second is devoted to the application of the forceps, giving rules and methods for its application at the various points of the pelvis canal and in different presentations. Part III. is devoted to critical remarks and discussion upon the perineal body and symphyseotomy, closing with illustrative cases.

While some of the views expressed are not fully in accord with those of some of the accepted teachers of obstetrics of the present time, there is much of value in the work, which is peculiar to it, and which will prove

useful and interesting. For example, in speaking of the Tarnier traction forceps, the author says "this is an unnecessarily ingenious contrivance, since we possess in the ordinary forceps all that is necessary if we will use them correctly." He claims and demonstrates satisfactorily that by exerting pressure downward with the left hand placed over the lock of the forceps, while the right hand makes forward traction, at the same time resisting the downward force of the left hand, the traction exerted on the fetal head can be made to comport with the axis of the pelvis. We are glad that the publishers have not permitted this book to pass from the notice of the profession.

The Physician's Wife, and the Things that Pertain to Her Life. By Ellen M. Firebaugh. With portrait of author and 44 photo-engravings of original sketches. In one Crown Octavo volume of 200 pages. Extra Cloth, \$1.25 net. Special Limited Edition, first 500 copies, numbered, and printed in photo-gravure ink on extra-fine enameled paper; bound in Half-Leather and Vellum Cloth, \$3.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

We picked up this volume to glance over it, and when we finished the "glance" we found we had read every word and were looking back for a supplementary glance at some special passages. Mrs. Firebaugh is one of those of whom she is writing, and has succeeded most admirably in bringing out the interesting (if not always pleasant) features of a country physician's experience, for his experiences are the things that pertain to his wife's life. She has brought out graphically the good-natured patient, who thinks "Why, Doc, *you* don't need money!" She also touches in a good-humored and

forgiving spirit on some of the innumerable inconveniences caused to the patient wife by the doctor's forgetfulness. Every page in the book is good reading, and the doctor will find some things in it that may make him pause

and consider. Procure the book, doctor, and when you have read it to your wife, place it where your patients can see it, for they will learn a good deal from it you would like them to know.

Abstracts.

Diagnosis and Operative Treatment of Acute Intestinal Obstruction Due to Bands.—Dr. C. T. Dent (*Brit. Med. Jour.*), in a clinical lecture on this subject, recently gave some of his experience in this line of surgical work. The complexity of symptoms is often due only to delay in treatment, and a large number of these cases present symptoms at the outset that may be interpreted with ease and accuracy. The class of obstruction under discussion falls directly under the province of the surgeon, and it does not require a long experience with the clinical work of a hospital to recognize that the disease, always formidable, is usually fatal. In regard to the causation, in the great majority of cases the bands are due to former attacks of peritonitis with adhesions. It does not advance knowledge to assume that the exact nature of the band matters little. It may be some time before we can surmise with any reasonable certainty the nature of the band that will be found in an acute case. We are already often able to form a correct opinion. There may be the history of an appendicitis, or localized trouble after parturition, or a localized peritonitis as a result of typhoid fever. It may be safely assumed that complete anatomical recovery does not take place after an attack of peritonitis sufficient

to cause adhesions. Slight adhesions are more likely to give rise to subsequent trouble than extensive matting of the intestines. A tag of omentum glued to some remote peritoneal surface or the adhesion of the free extremity of an appendix epiploica to a stray loop of gut, forms just the sort of condition most to be dreaded. There are generally some prodromata, though they may be so slight as not to give the patient much concern. The patient may have felt a little out of sorts for a day or two, or there may have been some little intestinal trouble attributed to a chill or diarrhœa, or the like. The irregular movements of the bowels may be the cause of the bowel thrusting itself under a pre-existent, but harmless, band, or it may have lain there for a long time without grave symptoms, when the intestinal disturbance causes an undue distension and the gut, as it were, tightens the band around its own neck. Where a band is reasonably expected we cannot operate too soon. After the first twenty-four hours the local condition becomes infinitely worse than the symptoms indicate. The calm ensues after the intestine has exhausted itself in its efforts to escape. What can drugs, be they opium, or belladonna, or purgatives, what can enemata do to relieve such a condition? And what can delay

do save convert a simple and hopeful case into a complicated and hopeless one?

Make the incision, in the absence of very clear indications to the contrary, in the middle line and below the umbilicus. Through this opening you can easily reach the sacro-iliac joint, and you are more likely to be clear of any adhesions that may have formed. I believe it is better to cut through the rectus muscle just on one side of the linea alba, rather than keep rigidly to the very middle. Pass your finger at once to the right sacro-iliac joint. Almost any form of obstruction will reveal itself to the touch as an undue induration. If a little fluid gushes out when you first open the peritoneum, you may feel certain that you have to deal with an obstruction. If you do not discover the site of the mischief at once by these manipulations, trace along the gut up or down; but be definite in your proceedings.

If there is collapsed gut as well as distended, begin with the former for choice, follow out its whole length first in one direction and then in the other, but do not hesitate and go first up and then down. Keep the intestine warm and keep it moist. Gentle irrigation with hot boracic solution is, perhaps, the best method. When you reveal the site of obstruction, try to raise it to the surface, and deal with it outside the abdominal cavity. Often it cannot be drawn up at all. Then the intestine around must be gently held back, and the nature of the band determined. If a peritoneal adhesion, be sure it does not include a drawn-out portion of the intestinal tube. Before dealing with the adhesion, let the assistant grasp the intestine lightly between his fingers on either side of the constriction, lest ulceration having taken place escape of feces follow the division of the band.

The moment the band is released or divided, the whole appearance will change quite suddenly. In many cases the cut ends disappear suddenly, and cannot be found again, and even the constricted portion of the gut may be hard to discover. Note if the circulation returns at once through the constricted portion. The collapsed gut may become fuller a little at once, and yet paralysis may prove fatal. If there is serious doubt, it is better, I think, to resect at once a large piece of the intestine.

Rapidity of operation is of cardinal importance, and any form of procedure, such as multiplication of sutures, is to be deprecated. With regard to rapidity in operating, you can hardly approach too near the limit that separates speed from haste.

If a patient's condition is too bad to allow of resection, bring a coil of intestine out of the wound, secure it after Mr. Greig Smith's method, tie in a glass tube into the distended gut, and drain in that way. This is infinitely better than making an artificial anus. Nearly all the patients thus treated die. In most cases where you consider it desirable to flush, it is advisable to drain the peritoneal cavity. Instruct the nurse to turn the glass tube once completely round every time she draws the fluid out with the syringe, otherwise the openings in the tube will become choked, and when you take out the tube finally, it will give pain, and, worse still, lead to a little bleeding and probable subsequent trouble. Take the utmost care to prevent any sepsis from extending along the tube itself or by its side. Suppuration along the track of the drainage tube, though not of itself very serious, delays convalescence; though difficult to avoid, it is still preventable.

I am unwilling to lay down any formal rules for after-treatment. In general

the principles are very simple. Opium is not usually necessary, and is, I think, to be avoided when possible. Do not keep your patient too long without any food by the mouth. Generally some must be given after the first twenty-four hours, and some is often desirable still earlier. In fact, you may give food, fluid, of course, directly you think the stomach can bear it. Do not allow the bowels to remain inactive again too long. There is an extraordinary tendency in these cases to administer purgatives before the constriction is relieved, and to withhold them after. Both practices are constantly pursued to an injurious extent. If you believe that the colon is loaded injections must be trusted to mainly; the purgative mineral waters will often answer admirably. If the small intestine is likely to be paralysed to some extent, the common black draught will answer admirably, or castor-oil. Flatulent distension occurring after operation may become a very formidable symptom, and is to be guarded against most carefully. Long injection tubes made of rubber are far safer to use than the gum-elastic tubes ordinarily supplied by makers. Puncture of the bowel through the abdominal wall has been recommended, but I cannot say that I am in favor of the method. Other means short of laparotomy have been advocated by high authorities, notably by Mr. Jonathan Hutchinson. Manipulations, shaking, and even inversion of the patient pursued on a definite system have relieved cases presenting symptoms of obstruction, but not often, I fancy, the class of cases with which this lecture deals.

If it is a kink you may succeed; if it is an impaction of feces causing an actual obstruction in itself, or producing one by pressure on another coil, you may succeed, and I doubt not in other

of the less grave forms of obstruction the practice is not unreasonable. But if it is a case of band with such symptoms as I have described, such methods will fail in the huge majority, while in the exceptional case you laparotomy would have been absolutely justified. In some you will find an irremediable condition. In some there will be found disorder, which, though possibly amenable to milder measures than laparotomy, can yet be efficiently treated by that means. In some you can but make the diagnosis certain, as, for instance, in tuberculous peritonitis, but this may be a great gain. Of the two evils, indiscriminate operation would be far better than universal expectancy.

Abdominal Hysterectomy, with Treatment of the Pedicle by the Intra-Peritoneal Method.—Dr. A. W. Mayo Robinson (*Brit. Med. Jour.*, Jan 20, 1894) reports two operations of amputation of the uterus for myoma, with intra-peritoneal treatment of the stump. The method employed in both these cases was the same. The incision in the middle line was made just sufficiently large to allow the tumour to be brought forward, when immediately a large flat sponge was placed over the intestines so as to avoid their exposure, and an elastic tourniquet applied around the base of the tumor as low as possible. A silk ligature was passed through the broad ligament close to the uterus on each side, and was tied firmly below the ovary, thus securing the ovarian arteries; the parts above the ligatures were then divided, leaving the ovaries and Fallopian tubes adherent to the tumor. The uterus was then removed by making anterior and posterior semilunar flaps, the anterior incision being prolonged downwards and backwards, the posterior one downwards and forwards, the two

incisions meeting at the level of the internal os or just above it. Two wedge-shaped flaps were thus left, which were easily apposed. The uterine arteries and all other vessels which could be seen were then ligatured, after which the tourniquet was removed and a few small vessels seized and tied. Iodoform was applied to the uterine canal, so as to fill the orifice completely.

By means of a curved sewing-needle the uterine tissue was brought together by a series of buried sutures until the two surfaces were closely apposed. The peritoneal flaps were then sutured by a continuous suture commencing at one broad ligament and ending at the other. The operation in both cases was almost bloodless beyond what was actually present in the tumor at the time of the tourniquet being applied, and the peritoneum was so dry that in neither case was it thought needful to insert a drainage tube.

I happened to have a good opportunity of testing the difference in recovery after the intra-peritoneal and extra-peritoneal methods, as, on the same day that I operated on the first case in the infirmary, I performed hysterectomy on a private patient. In the former case the patient was convalescent at the end of a week and able to return home in three weeks; in the latter, although the progress was very satisfactory, the pedicle needed daily dressing, and the patient was unable to return home until the sixth week.

I think the method of intra-peritoneal treatment will be applicable to a considerable number of cases of hysterectomy, but in any case it is easy to be prepared with the *serre-nœud* if it be found desirable to hasten the termination of the operation, or should it be felt that the *technique* was unusually difficult owing to peculiarity in the devel-

opment of the tumor. My feeling is very distinct, in that in future I shall always commence the operation of hysterectomy with the intention of completing it in the way I have described, and I feel that I can safely recommend it to others as an operation well worthy of attention.

Membranous Croup.—(William A. Dickey, *Medical Review*). Croup and diphtheria, from whatever standpoint viewed, are essentially different. One of the most practical points of difference is the direction in which the membrane spreads, that of diphtheria spreading upward, beginning in the tonsils generally, finally reaching the nostrils, and when death ensues it is usually from systemic infection; while in croup it passes down, invading the trachea and bronchi, gradually growing thicker, and the patient dies from asphyxia. In croup the false membrane is upon, and does not reach down into, the mucous membrane and submucosa, and when removed (which can be easily done), does not leave a raw, bleeding surface, as in diphtheria, nor has the Klebs-Loeffler bacillus ever been found in croup, though a bacillus similar, morphologically, may be found, but it will not produce the ptomaines which are the result of the former bacillus. As for treatment, at the outset an emetic dose of turpeth mineral, grs. iij to v, are given—always with the result of relief to the labored respirations, with disappearance of the lividity of the lips and finger-tips. The room should be kept warm and saturated with moisture, medicated or not, as suits the peculiar belief of the individual practitioner. The turpeth mineral is to be *repeated whenever the respiration becomes embarrassed*. If the bowels are constipated, give a sufficient quantity of calomel to move them thoroughly,

but as a constitutional remedy he has never derived the benefit from it that has been claimed by others, though he has given it in large doses and small, at long intervals and short ones, continuously and interruptedly. Ice applied to the throat, by means of a rubber bag or bladder, with pellets of ice to relieve thirst. *Quinine to decided cinchonism, which is to be maintained.* An amount of chloral sufficient to allay spasms of the air-passages, with decided doses of belladonna should be given—chloral, gr. i, with tincture belladonna, m. v-x, once in three hours until four or five doses are given. It is best given in glycerine. By far the best local application for the dissolution of the membrane is peroxide of hydrogen, either in full strength or diluted, as the individual case may suggest. It is tasteless, practically, and not irritating in the least degree. The juice of the pineapple, the child being induced to eat largely of the fruit cut into thin slices, and trypsin, with carbonate of soda, in warm solution. This is to be supplemented by a sufficient amount of easily digested food, with stimulants when required in the later stages of the disease. The success of tracheotomy depends upon three factors—(a) the time at which the operation is made, (b) the patient's case and surroundings, and (c) the skill of the operator.

The Letter of the Law.—The *Bulletin of Pharmacy*, in an editorial entitled "The Letter of the Law," relates the out-come of a celebrated case that was tried before the New Jersey courts some two and a half years since. Two druggists were indicted for dispensing adulterated drugs because they had sold for a tincture of nux vomica an alcoholic solution of normal liquid nux vomica. The law of that State was that any drug sold under a name recognized

by the United States Pharmacopœia, and differing from the standard of the U. S. P., was to be deemed adulterated. The tincture as thus prepared contained only .712 p. c. of dry extractive, whereas the U. S. P. called for 2 p. c. The defence brought forward eminent authority, several of whom were members of the Committee of Revision, who testified that the quantity of dry extractive forms no standard of strength or quality, but that the active constituents of nux vomica are its two alkaloids strychnine and brucine alone. In the face of all argument, however, the court adhered to the letter of the law, and pronounced judgment in favor of the plaintiff. The Revision Committee for 1890 changed the requirements for tincture nux vomica, so that it must now contain .3 p. c. of alkaloids. As the new Pharmacopœia became a part of the New Jersey law the first of this year, there could now be no legal basis for any such action. The change of standard for the tincture, as consisting in the quantity of alkaloids rather than dry extractive, is a decided vindication of the introducers of normal liquids—Messrs. Parke, Davis & Co.

The Use of Salol in Diarrhœa.—(Charles G. L. Skinner, *Medical Chronicle*.) The ordinary treatment of diarrhœa by a purge, followed by opium and some form of astringent, is often very unsatisfactory. Since epidemic diarrhœa, and possibly other forms, are probably due to the action of micro-organisms, the rational treatment is to use substances that will destroy these micro-organisms. In salol we have a drug that is insoluble in water, is not changed in the acid contents of the stomach, but on reaching the alkaline intestinal fluids is broken up into its constituent parts—phenol 40 p. c., and salicylic acid 60 p. c. These exert their full strength on the intestinal

contents. If we take into consideration that in diarrhœa absorption in the bowel is no doubt less active than in health, and also that the micro-organisms that abound in the intestines aid us in compassing their own destruction by splitting up any of the salol that may have escaped the action of the pancreatic juice, we must admit that, theoretically, at least, salol is more likely to give good antiseptic results than the other drugs more commonly prescribed. A further advantage is that a larger dose of carbolic acid can be given in the form of salol, owing to its non-absorption in the stomach, than if the drug itself is prescribed. Ordinary catarrhal diarrhœa, due to errors of diet, diarrhœa of children, diarrhœa occurring in the course of some other disease, two or three doses seldom fail to arrest, whilst in the diarrhœa of tuberculosis it can generally be relied upon to give temporary relief. The sedative action of the carbolic acid lessens the peristaltic movements, and so relieves pain. The drug should be given in doses of 10 to 15 grs. (best given in a spoonful of barley water or gruel), which may be repeated every four or six hours; to a child a year old, 1 or 2 grs. may be given. If continued in these doses, not more than one or two days it must very rarely cause any untoward symptoms; and as two or three powders are generally sufficient to check diarrhœa, I think salol deserves to rank among the most useful of recent additions to the *Materia Medica*.

Examination of the Female Bladder.—Dr. A. H. Kelly (*Bulletin J. H. Hosp.*) describes a new method and instruments for the examination of the female bladder and catheterization of the ureters under direct inspection. The urethra is dilated gradually to 10, 12, 14 or 15 mm., the urine drawn off and a

speculum corresponding in size to the last dilator used is inserted into the urethra. The patient's hips are elevated, when the bladder becomes distended by air-pressure, similar to the vagina in the Sims method. With a head-mirror the light from an electric light, lamp or candle, can be reflected into the bladder and every portion inspected in turn by changing the direction of the speculum. By elevating the outside end and carrying it to either side, the mouth of the ureter of the opposite side is brought into the field, when it can be found easily with a small, long catheter. The orifices appear as pits, or slits, or semi-lunar folds, with their convexity outward.

Scapulo-humeral Palsy of Peripheral Origin.—Meyer (*Deutsche medicin. Wochenschrift*, 1893, No. 34, p. 810) reports a case of scapulo-humeral palsy of peculiar etiology. The case occurred in a man, 21 years old, who received several stab wounds, one of which was situated at the upper angle of the inferior cervical triangle of the left side. There was considerable hæmorrhage, for the control of which it was necessary to ligate the external jugular vein. At the time there appeared to be some paresis of the left upper extremity. After the wound had closed the left arm hung relaxed and flabby and was the seat of persistent sharp pain. Three-quarters of an inch above the clavicle, directly over the clavicular portion of the sterno-mastoid muscle, and corresponding to the situation of the brachial plexus, was a dense adherent cicatrix. The deltoid muscle was somewhat wasted and completely paralyzed. The pectoral muscles were well developed and intact. Of the elevators of the humerus the trapezius only appeared to be intact. The teres major and teres minor,

the supra-spinatus and the infra-spinatus appeared to be parietic. At rest the contiguous borders of the scapula were parallel; the serrati were active. Attempts to elevate the arm gave rise to an appearance as if the shoulder-joint were ankylosed, though passive movement was unrestricted. Rotation was greatly impaired. Flexion of the forearm, whether pronated or supinated, was impossible; supination was restricted. The affected muscles presented reactions of degeneration. Upon the radial aspect of the arm, anteriorly and posteriorly, sensibility was distinctly impaired, particularly in the regions supplied by the supra-scapular, axillary, anterior and posterior brachial, cutaneous and median and lateral cutaneous nerves. Upon the thenar eminence the area supplied by the median nerve also was insensitive. The pressure-sense and the temperature-sense presented no appreciable alteration. In the cases described by Erb the palsy involved the deltoid, the biceps, the brachialis anticus, and perhaps the supinator longus and supinator brevis. Anatomic and experimental investigation showed that the lesion was to be found in a certain circumscribed portion of the brachial plexus, at the point where the fifth and sixth cervical nerves make their exit from the scaleni muscles to unite and give origin to the supra-scapular nerve. The causes that have been present in the cases of this type of palsy hitherto reported are as follows: a fall upon the shoulder; excessive adduction of the arm; excessive adduction and elevation; crushing of the shoulder and traumatism; direct pressure; essential neuritis.—*Am. Jour. Med. Sci.*

[The week preceding the receipt of the journal containing this report a similar case occurred in our practice. A sailor was stabbed in the left side of

the neck, the wound being quite small and having the appearance of having been inflicted with a pen-knife. It was situated an inch and a half below the ear. There was complete paralysis of shoulder-joint, but as patient, in response to inquiry, said he had fallen on his shoulder, this was supposed to have been the cause of the paralysis. He was instructed to return in a couple of days, but was not seen for more than a month. Examination then revealed the following: The shoulder could be elevated (shrugged), the arm could not be moved from the side, the fore-arm could be flexed with very great effort and only by inclining the body backward and to the opposite side. It could be kept flexed only a very short time and a weight of a pound would extend it. The hand-grasp was normal. When the fore-arm was flexed there appeared no evidence of action in the biceps, and this movement was effected by the brachialis anticus. Inspection showed perceptible wasting of shoulder muscles. As compared with the other side, measurement under axilla and over top of shoulder, showed a loss of one inch; from upper point of axilla in front to inner border of scapula showed an equal loss. Sensation was absent from all that area overlying the deltoid and that supplied by the great auricular nerve. The ability to discriminate between heat and cold was also lost in the affected area, there being generally no sensation except that of pressure, and when he did attempt to discriminate, he was wrong as often as right.—EDITOR.]

The Absorption of Salicylic Acid by the Skin.—Dr. Bourget (*Revue Medicale de la Suisse Romande*) reports 19 cases of inflammatory rheumatism treated exclusively by external use of salicylic acid, and he concludes that it

is absorbed in a sufficiently large quantity from the skin for a rapid and perhaps for a more rapid cure than when given by the mouth. It suppresses the pain with surprising rapidity, diminishes the swelling, and the fever gradually falls. The ointment containing the drug is applied over the circumference of the affected joints, and the limb is covered with a flannel bandage. The urine for the twenty-four hours was carefully collected and examined to determine the presence of the remedy. The following conclusions are presented:

1. The absorption of the salicylic acid by the skin is rapid and marked. The skin of the young absorbs better than that of old subjects, of blondes better than brunettes.
2. The rapidity and intensity of absorption depends upon the vehicle in which it is dissolved. Fatty bodies are the only ones which allow the greatest penetration, while with vaselin or glycerin it is absent or slight.
3. The treatment of acute articular rheumatism with a terebinthinated salicylic ointment is strongly recommended.
4. This ointment is less efficacious in other forms of rheumatism, but it may be of assistance in the treatment of these affections by massage.
5. It has no value in gonorrhœal rheumatism. The formula recommended is: Salicylic acid, essence of turpentine and lanolin, of each 10 parts, of lard 100 parts. The amount of salicylic acid which is eliminated by way of the urine in twenty-four hours, varies from 3 to 9 grains.—*Am. Jour. Med. Sci.*

The Treatment of Fractures of the Lower Extremities.—Within the past few years a marked change has been made in the treatment of fractures. This advance method of treatment is remarkable for the saving of time to the patient, as well as strength, and also

those evils which too often accompany long detention in bed, especially in patients of advanced years. Of this new method Schmid (*Centralbl. für Chirurg.*, 1893, No. 32) says the progress lies in the fact that, instead of spending six weeks in bed, the patient generally remains but six days, and avoids those complications, such as bronchial catarrh and hypostatic pneumonia; while healing is quicker, as he believes, because the circulation is nearer the normal, and the pressure of the parts together stimulates the healing process. For the past five or six years this author has used this method in treating all fractures of the lower extremities, and within the last two or three years in cases of compound fractures, resections and osteotomies. He claims for this method no improvement in technique; its results are due to a new method of using old and well-tried means. The author uses a well-fitting plaster-of-Paris bandage that does not include the joint (unless involved) on either side of the fracture; properly placed in apposition, the fragments can be securely held in place by this means. The patient is thus enabled in the first week to stand and move about without pain or danger. As an illustration the author gives his treatment of one case of fracture of the malleoli. When such a case is seen one or two hours after the accident, the bones should be set by extension, counter-extension and manipulation, the limb placed upon a splint in an elevated position and cold applied. In from three to six days after resorption has taken place and the swelling has gone down, a plaster-of-Paris bandage is applied from, in this case, the toes nearly to the knee-joint, forcible extension being maintained meanwhile. The patient can the next day, with such a dressing properly applied, stand and walk. If

for any reason there is any doubt about the proper adjustment of the fragments, or if there are signs of swelling or of the disappearance of former swelling, the bandage should be reapplied after eight days. A sole and heel are placed upon the plaster, or in well-to-do patients a very high tight-lacing shoe made in three parts at the top may be used. He allows his patients two crutches for two days and two canes for two days more; then they go about with one, or generally without any. If the bandage is rightly put on, fear is the only thing that has to be contended with. One of his patients rode two weeks after fracture of the malleoli, and continued to ride for three weeks longer in his plaster-of-Paris dressing. Five weeks after such a fracture he removes the bandage and begins treatment by massage, baths, douches and active and passive motion in the ankle-joint. The patient, however, is not allowed to walk until he has a strong, tight-fitting, high-laced shoe. By this method of treatment his patients have done well, and he has never seen deformity or complications. There has sometimes been rigidity in the joints,

but under the ordinary treatment it has always been easily overcome. When a fracture is seen immediately after the accident, and no swelling or ecchymosis has taken place, the plaster-of-Paris bandage may be applied immediately, and the entire healing allowed to take place under it.—*Am. Med. Jour. Sci.*

A New Remedy for Enlarged Prostate.—Dr. A. T. Speer (*Medical Age*, February 25), in a case of enlarged prostate in a man aged 69 years, prescribed Liquor Sedans, with gratifying result. Micturition was very frequent, with much pain before and after. He had tried the classic remedies with little success, and was led to try Liquor Sedans by its sedative action on the uterus. It was prescribed in teaspoonful doses every hour. He says: "Somewhat to my surprise, in spite of this modicum of faith I had, after the third dose the man became quite comfortable. He is now taking two or three doses daily, with the result of finding his life full of sunshine and pleasure instead of one long agony." He reports the same success in several subsequent cases.

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Dr. W. J. Montford, of Ward's Mill, suffered quite a severe loss on the 2d of March, from fire. His saw and grist-mill were burned and were not insured.

Rex Hospital, with thirty beds, will soon be opened in Raleigh. Its site was

selected after consultation with the State Board of Health.

Mr. Van der Weyde, of London, has invented a machine which turns out large cubes of ice made up of smaller cubes which are frozen together. These

small cubes weigh one-half or one ounce each, and each bears a stamp designating the manufacturer and being a guarantee of the purity of the ice. The cubes are easily separated with a knife-blade, and, besides being beautiful for table service, avoid waste.

Dr. Wm. R. Wood, who for several years has filled the office of Superintendent of the North Carolina Insane Asylum, at Raleigh, has resigned. During the time he has been in charge, Dr. Wood has filled the position with marked ability, and the Directors adopted resolutions highly complimentary to him. We learn that Dr. Geo. L. Kirby, of Goldsboro, has been elected to succeed Dr. Wood.

Dr. J. A. Faison has removed from Mt. Olive and taken up his abode in Wilmington, where he will continue to practise his profession. We extend the Doctor the right hand of fellowship, and welcome him most heartily.

The forty-fourth annual meeting of the South Carolina Medical Association convenes in Rock Hill on the 25th of April, 1894. Dr. John L. Ancrum, of Charleston, is President. An interesting program will be presented.

Cases of small-pox continue to break out in new places, and new cases occur in the cities already infected. Chicago, Boston, Pittsburgh, Waterbury, Conn., Atlanta, and other places report new cases. A bill for compulsory vaccination has been introduced in the Massachusetts Senate. It requires all parents to have their children vaccinated before they reach the age of two years, and provides for compulsory vaccination and *revaccination* whenever, in the opinion of the Board of Health, the common safety demands it.

The Trustees of the University of North Carolina have passed resolutions denouncing foot-ball until the rules have been changed to do away with the brutal, barbarous, gladiatorial features. They forbid the indulging in inter-collegiate games to such an extent as to interfere with the course of studies. Why should the game, by the way, any longer be called foot-ball, when it is a violation of the rules of the game to kick the ball, except under special conditions? It reminds us of the boy who jumped aboard the train, as she drew up at a station, and offered for sale "hot mince pies." A passenger took out his money and gave it to the boy, who placed a pie on the cushion and hasted on. The pie turned out to be stone-cold, and when the boy on his return was remonstrated with, he coolly replied, "Oh, no, they ain't hot, that's just the name of 'em."

Dr. Charles E. Mann, of Beaufort, died suddenly in New York, where he was attending a course of lectures.

The twenty-first annual meeting of the Florida Medical Association will be held in Tampa, March 20th. Dr. F. H. Caldwell is President, and Dr. J. D. Fernandy Secretary.

The fourth annual meeting of the Association of Military Surgeons of the United States will be held in Washington, D. C., May 1st, 2d and 3d, 1894. The afternoon of one day will be set apart for an object lesson from the "Manual of Drill" by the Hospital Corps."

A physician who can furnish good references and who desires a good country location among a community of thrifty farmers, is asked to correspond with Mr. W. E. Grant, Garysburg, Northampton county, N. C.

Dr. J. M. Lawing died at his home in Lincolnton, March 6th of heart-failure. He was in his fifty-eighth year. A wife, two sons and a daughter survive him.

Dr. John Bynum has been elected health officer of Winston. The paltry salary of \$400 has been reduced to the ridiculous sum of \$200. How much time can an efficient man give to the work at that price? Until municipal authorities come to understand that stinginess in matters that pertain to sanitation is the worst kind of extravagance, preventable diseases will continue to destroy useful lives and keep desirable settlers away.

The Congress of American Physicians and Surgeons will be held in Washington, D. C., May 29th, to June 1st inclusive. An attractive program has been arranged for the various sections.

STUDENTS' RELIGIOUS MEETINGS.—For some months past the students of the City of Philadelphia have been holding, every Sunday night, religious services at the Walnut Street Theatre. All the meetings have been well attended, and much interest was manifested by the students of the Jefferson Medical College, to whom much praise is due for its success. The last of these meetings was held on Sunday evening, January 28, 1894. The chief address of the evening was made by Professor Theophilus Parvin, of Jefferson Medical College. The following is an extract from his remarks:

"The newspapers during the last few days," he said, "have been full of the fight that was to be and the fight that was. The day after the fight they filled nearly two pages with disgusting detail about how two men in the image of God tried to deface that image. The newspapers were not to blame. They publish

what the people want, and are the criterion of the spirit and morality of the times. But what must we think of this glorification of the human body? Remember the many great and noble deeds that have been done by men and women who were weak and feeble in body." He declared the object of these evangelistic meetings to be the glorification and up-rising of the spiritual, while at the same time not denying the material or bodily.

"Very few people," he continued, "realize to what an extent medical students are surrounded by temptation. If it was generally known just what those temptations are and the influences that are back of them—property-owners and even ministers of justice—there would be such an upheaval of public indignation as would utterly sweep away what we politely call 'the social evil.'"

Addresses were also made by Dr. Horatio C. Wood, of the University of Pennsylvania; Dr. John E. James, of the Pennsylvania Dental College, and Dr. J. M. Anders, of the Medico-Chirurgical College. Mrs. Charles H. Wevill sang "Power to Save" and other solos, and music was rendered by the Pennsylvania Dental Mandolin and Guitar Club and the Jefferson College Quartette,—*College and Clinical Record*.

THE EXTERNAL USE OF GUAIACOL.—In the *Province medicale* for February 3d there is an article on this subject of which the following is the substance: "This procedure, which was used by Sciolla and Bard, has for some time been employed as an antithermic. It consists in painting the greater part of the exterior wall of the thorax, and sometimes the forearms, with pure guaiacol. According to different authors, the doses are variable, ranging from one or two cubic centimetres up to seven or eight. There is a difference of opinion as to

the employment of this liquid. Sciolla, Bard and other physicians use pure guaiacol, while others, like Desplats, mix it with glycerin or alcohol. In several cases of advanced phthisis, a marked reduction of 2° has been obtained by painting the entire surface of the front of the thorax with pure guaiacol. Unfortunately, the effects of this treatment are only temporary, not lasting more than three or four days. Sometimes, also, applications of this kind produce a marked rise in temperature—in one case of 2° . It is necessary, then, in making use of this procedure to ascertain the susceptibility of the patient, and to use at first small, and then progressively, large doses. There have been of late years interesting attempts in the employment of this procedure. Casasovici and Miron Sigalea have used guaiacol mixed with tincture of iodine, in the treatment of pleurisy, in the following proportion: Tincture of iodine, 385 grains; guaiacol, 75 grains. This quantity is used in a single application, and the diseased parts are thoroughly and extensively painted with it every night. These applications cause a considerable reduction of temperature, profuse perspiration and an increased flow of urine, followed soon after by complete resorption. These results seem to have been obtained, particularly in one case, where there was abundant pleuritic effusion on the left side, in which tapping had not been followed by any relief, but had caused a considerable rise in temperature, by the application of iodized guaiacol, the fever disappearing in a few days and the effusion becoming resorbed.

M. Desplats has recently conceived the idea of applying guaiacol in the treatment of painful rheumatic inflammation of the joints, after having observed a case in which applications of guaiacol

had been used with excellent results. He has used a mixture of equal parts of guaiacol and pure glycerin. The joints were thoroughly painted with this mixture and afterward covered with a dry dressing. In one case of acute rheumatism and in three others of arthritis deformans with sharp pains, the results were excellent. The pain was completely subdued, and in the first case the patient recovered rapidly. This procedure has recently been employed in applying guaiacol for articular neuralgia of the shoulder, which was very painful, in a tuberculous patient, who experienced marked relief. It is easily employed and not dangerous if the indications mentioned are conformed to.—*N. Y. Medical Journal*.

When Dr. Charles Jewett, of Brooklyn, on September 30, 1892, performed symphyseotomy, a few days following the reading of a paper on this subject by Dr. Robert P. Harris, it was thought this was the first time the operation had been done in the United States. It has, however, turned out that Dr. William Thomas Coggin, of Freedman, Ala., is entitled to the honor of priority, having operated successfully to both mother and child on March 12, 1892. His was the second operation outside of Italy, the place of its conception; and the operation preceding his was done by Prof. Pinard, of Paris, on February 4, 1892, the child, however, dying.

The students of Jefferson Medical College, Philadelphia, have organized a Young Men's Christian Association, with rooms at 1033, Walnut street. What does Mrs. Firebaugh (The Physician's Wife) think now?

Dr. E. C. Laird is spending a few weeks in Jacksonville, Fla. His address is care St. James' Hotel.

The mortuary report for Wilmington, N. C., for January, 1894, shows:

	Population.	Deaths.	Death-rate.
White,	9,000	6	8.0
Colored,	13,000	26	24.8
Total,	22,000	32	17.4

The mean temperature was for the month 49.6, highest 75.0, lowest 31.0. Clear days 9, partly cloudy 11, cloudy 11, and rain fell on 10 days. Total precipitation 3.70 inches.

The death-rate in North Carolina for January, 1894, was as follows: Reports from 28 towns show for Whites—population 85,450, with 80 deaths, representing an annual death-rate of 11.2; Colored—population 59,704, deaths 121, representing an annual death-rate of 24.3. Total—population 145,154, deaths 201, death-rate 16.6.

Dr. E. A. Anderson died at his home in this city on the afternoon of Sunday, March 11, 1894. He was one of the earliest members of the State Society, having joined in 1852, and was in his 78th year. Our whole city is in mourning for the loss of the good man, who for so many years has gone about doing good, healing the sick and helping the poor. We mourn as one who has lost his father.

Mr. Anthony Comstock's recent suit against the Daggett Table Co. for sending obscene literature through the mails is likened by Brother Daniel of the *Texas Medical Journal* to the old lady's putting pantalets on the piano legs.

Dr. L. J. Picot accompanied the medical tourists to Atlanta.

Reading Notices.

A VALUABLE DRUG IN TREATMENT OF WINTER COUGH.—Many are the single agents employed in the treatment of that persistent bronchial ailment known as "winter cough," and divers are the combinations made to suit each individual case. Agents proposed and lauded as "specifics" in this disease have signally failed to maintain the title. Among the new remedies named, but not brought forward as a specific at all, is the *Eugenia Chequen*, or Chekan, a native Chilian drug. For a complete description of the agent, botanically and therapeutically, we refer our readers to the Pharmacology of the Newer Materia Medica, and a brochure issued by Parke, Davis & Co., Detroit. That it is a valuable addition to our list of agents for the treatment of bronchitis and its allied disorders, is evident to the writer. It has made a good record, so far. It is worthy of a careful investigation and trial. Dr. Wm. Murrell, of Royal Hospital for Diseases of Chest, London,

basing his opinion on notes of 15 cases of chronic bronchitis in which he employed Chekan, says: "In all cases the patient obtained some benefit, and in most instances the relief was very marked." The Fluid Extract has a pleasant balsamic odor and taste. It is highly resinous, hence not miscible with water. It mixes nicely with glycerin and syrups, in which it should be administered. We advise a testing of its merits.—*Sanative Medicine*.

Cactina, the active principle of the *Cactus grandiflora*, has been lately used with much success as a cardiac tonic. It has been found especially valuable in cases of functional disorders of the heart, and produces good results in cardiac dilatation, with anasarca, with or without valvular disease, when digitalis and other drugs have failed. It has no tendency to produce gastric disturbance, and in this respect it has a decided advantage over digitalis. The drug has

been put up as CACTINA PILLETS by the Sultan Drug Co., of St. Louis.

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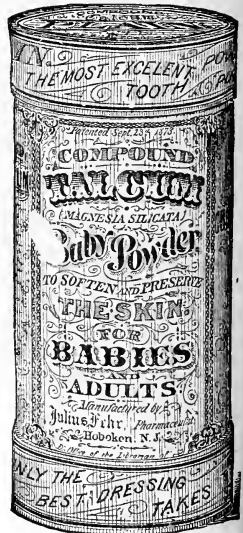
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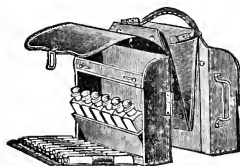
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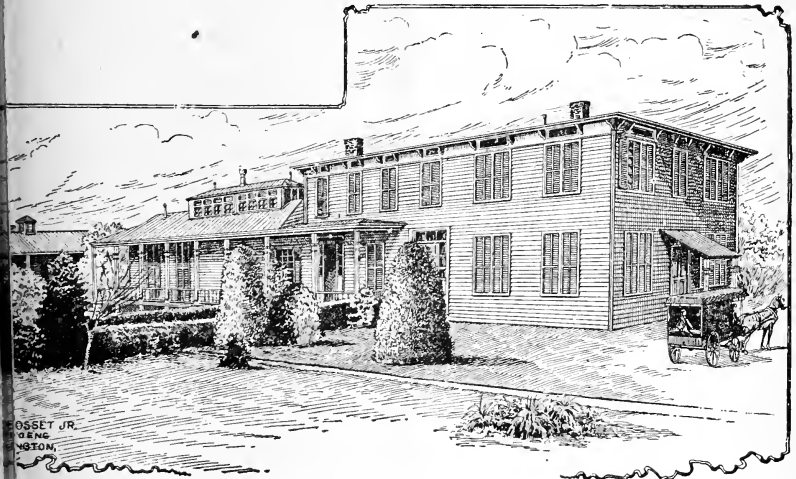
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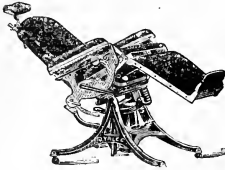


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Fig. XVII—Dorsal Position.

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Fig. I—Normal Position.

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Fig. XI—¾ Length.

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Fig. XIII—Sim's Position

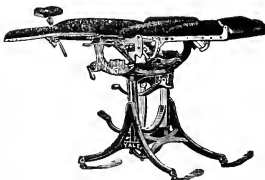


Fig. VII—Horizontal Position—Elevated.

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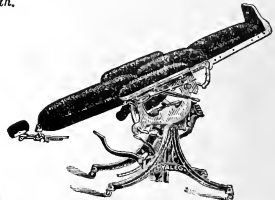


Fig. IX—Chloroform Narcosis Position

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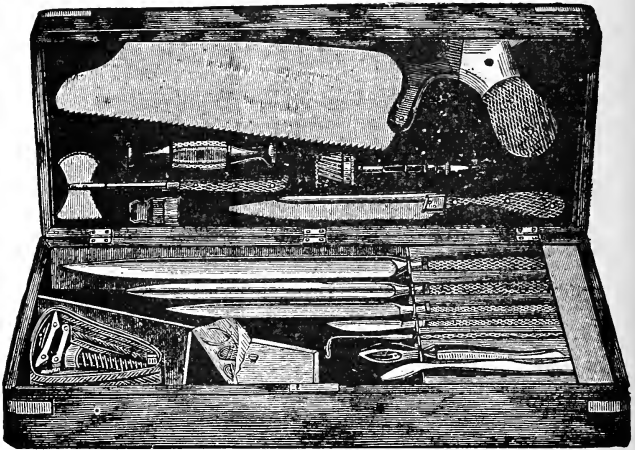
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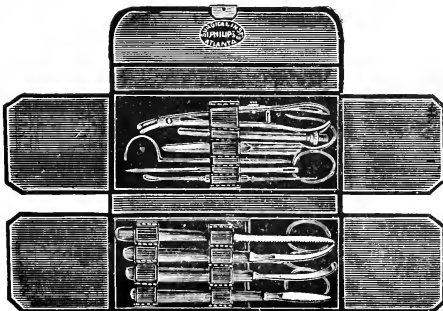
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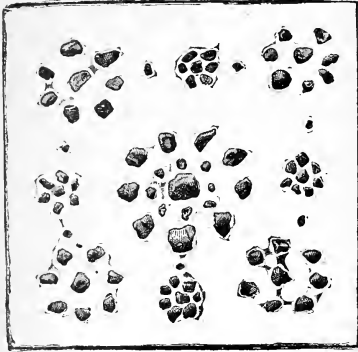


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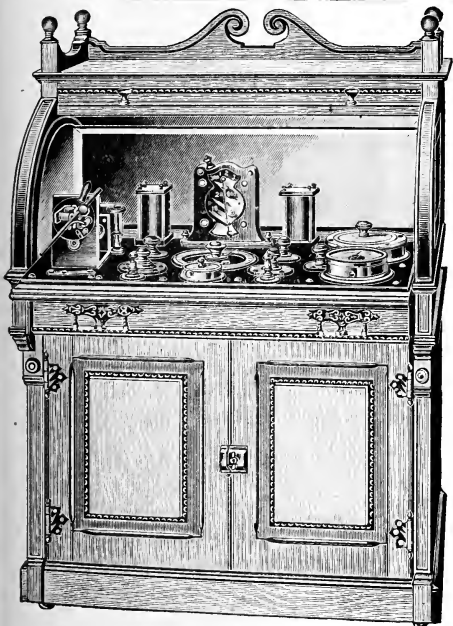
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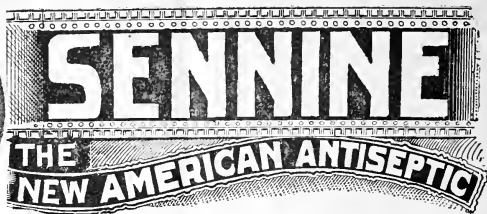
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Table of Contents, - - Page 5.)

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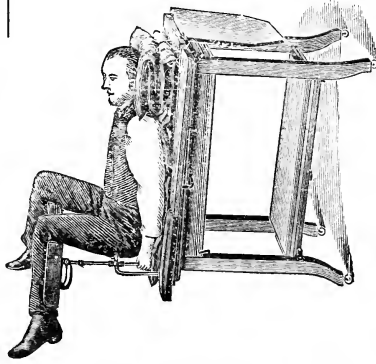
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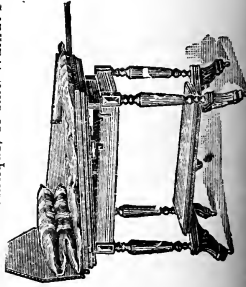
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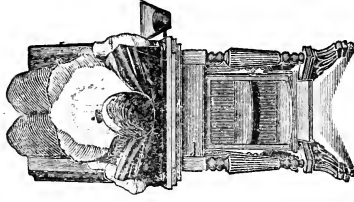
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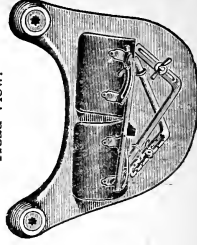
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Table of Contents.

Original Communications :

Three Cases of Uterine Fibroid— <i>Henry T. Bahnson, M. D.</i>	139
Mild Conjunctivitis— <i>W. H. Wakefield, M. D.</i>	142
Removal of Large Fibroid by Abdomi- nal Section—An Efficient and Com- fortable Dressing for Fractured Cla- vicle— <i>H. O. Hyatt, M. D.</i>	144
A Case of Puerperal Septicæmia— <i>B. T. Bitting, M. D.</i>	146

Clinical Lecture :

Diseases of the Cornea— <i>J. A. White, M. D.</i>	147
---	-----

Selected Papers :

The Early Diagnosis and Practical Surgery of Cancer— <i>Herbert Snow, M. D.</i>	153
Malpractice as Defined by Law— <i>Hon. David McAdam</i>	158
Meat Preservatives—New Method of Treating Peritoneal Tuberculosis.....	167

Editorial :

Some Needed Legislation.....	168
At Last.....	170
Medical Society Meeting.....	171
North Carolina a Feeder of Northern Specialists and Hospitals.....	171
New Journals.....	172

Reviews and Book Notices :

A Text-Book of the Theory and Prac- tice of Medicine— <i>Peppe</i>	173
The National Dispensary.....	173
The Modern Climatic Treatment of In- valids with Pulmonary Consump- tion in Southern California— <i>Remon- dino</i>	174
The Johns Hopkins Report.....	174

Correspondence :

The Situation in North Carolina— <i>H. O. Hyatt, M. D.</i>	174
--	-----

Society Reports :

The Use of Proprietary or Secret Rem- edies by the Physician— <i>V. P. Beall, M. D.</i>	182
--	-----

Miscellaneous Items.....	187
Reading Notices.....	188

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Parke Davis & Co.....	" 1	Wheeler Chemical Works	18
Daggett Chair Co.....	" 2	H. H. Ballard	18
Mr. Fellow.....	" 3	C. F. Boehringer & Soehne	19
Arlington Chemical Co.....	" 4	Wilmington City Hospital.....	20
W. H. Schieffelin & Co.....	1	Scott & Bowne.....	21
J. Watkins Lee.....	{ 2	Vaccine Virus.....	21
Sharp & Dohme.....	4	Codliver Glycerine Co.....	21
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Virginia Pharmacal Co.....	7	Special Offer.....	23
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Renz & Henry.....	9	Harris Lithia Water.....	26
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Kentucky School of Medicine	15	Cal. Fig Syrup Co.....	31
Bellevue Hospital Medical College	15	Rio Chemical Co.....	32
University of Virginia.....	15	The Upjohn Pill and Granule Co.....	33
University of Pennsylvania	16	H. O. Hyatt, M. D	34
University of North Carolina—Med Dept.....	16	Special Offer.....	34
North Carolina Medical College.....	16	Listol Chemical Co.....	35
St. Luke's Home	16	Svapnia.....	36
University Medical College.....	17	C. N. Crittenton.....	36

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THREE CASES OF UTERINE FIBROID.

By HENRY T. BAHNSON, M.D., Salem, N. C.

Case 1.—Mrs. B., æt 32, white, came to me about a year ago, suffering from painful metrorrhagia. She gave every evidence of a mural fibroid, and I advised the persistent use of ergot and iodide of iron. She reports that under this treatment she improved for several months, when she discontinued the medicines and rapidly grew worse. Two months ago she was attacked with intense pain in the abdomen and high fever, which her attending physician pronounced peritonitis.

She is now greatly weakened, emaciated and exsanguinated. Inspection and palpation revealed a globular, fluctuating enlargement, occupying the entire abdomen except the epigastric region. On being told that the abdominal section offered only a very faint hope of recovery, she gladly consented, and

immediately moved to town for the purpose. In the presence of ten or twelve of our local physicians, I made the usual incision in the linea alba, and found complete adhesion between the opposing peritoneal surfaces. An extension of the incision showed only an extension of the adhesions. With the handle of a scalpel and a curved steel sound, the adhesions gave way easily, with a peculiar crackling sound, while the tumor was laid bare for four or five inches on each side, but the blood welled up so profusely from innumerable little capillaries that all present agreed our patient would bleed to death long before complete separation could be effected. Hot water and exposure of the bleeding surfaces to the air speedily checked the profuse oozing. While the tumor was thus laid bare, all my confrères satisfied

themselves, from its appearance and perfect fluctuation, that we had only a simple cyst to contend with. Inasmuch as its removal seemed impossible, I determined to evacuate it, and by attaching its walls to the edges of the abdominal incision, establish permanent drainage. Puncturing it with a trocar, I met with continued resistance, and not a drop of fluid followed the withdrawal of the instrument. The cyst wall was accordingly opened to the full extent of the external incision and exposed to our view a fibroma! The operation was a failure! To admit of drainage to the widely separated peritoneal surfaces, the incision was only loosely drawn together, without including the capsule of the tumor in the sutures.

The next day there was œdema and marked crepitation over the abdomen, with sanious discharge from the wound. The third day the discharge became offensive and sloughing tissue pressed up between the sutures. These were cut, and for a week or more my patient amused herself by drawing out shreds and large masses of the disintegrating fibroid.

The tumor subsided so rapidly that, on the seventeenth day after the operation, she rode in a wagon eleven miles to her home, and in two months she was doing her full share of the farm and household duties. With the exception of occasional severe abdominal pains, for some months after the operation, due, doubtless, to adhesions of the intestinal folds, she has remained well for nearly two years, and is rather proud of the large ventral hernia as a painless reminder of her long, hopeless sufferings. The tumor has entirely disappeared, and with it all morbid irregularity of uterine function.

Case 2.—Eliza M., colored, married, but childless, at 32, has been burdened

for years with a uterine fibroid. Before she was aware of its existence, and until two years ago, there was painful metrorrhagia. Latterly the bleeding has been less, with an approach to menstrual regularity, but she has had frequent attacks of subacute general peritonitis, which have confined her to bed an average of a week. Eight weeks after such an attack I commenced treating her by electrolysis. Her abdominal circumference was 47 inches, and the growth was smooth, hard and non-fluctuating. A No. 13 (American scale) insulated electrode was passed well into the uterine cavity and attached to the negative pole of the battery, the circuit being completed by an abdominal electrode, made of brass gauze 7x15 inches, covered with three or four folds of absorbent cotton and thoroughly moistened with warm water. The current varied from 100 to 250 milliamperes, according to her tolerance, and was applied every fourth day for fifteen minutes. After the fourth application her abdominal measurement had lessened to 38 inches, and after the eighth seance to 34 inches, with marked increase of comfort. A few days later another attack of peritonitis came on, which confined her to bed for a week and considerably increased her circumference.

Four weeks later she presented herself again for treatment, her girth being now 42 inches, and, notwithstanding my apprehension of again lighting up a peritonitis, I was induced by her earnest entreaties, and encouraged by the total absence of abdominal tenderness to recommence the treatment. This time I very gradually increased the current to 100 milliamperes, and, as it caused no pain, continued it for twenty minutes. Three days later I was sent for and found her with considerable fever and great abdominal tenderness. In addi-

tion, there was a profuse, fetid, ichorous and flocculent discharge from the vagina, which had come on the day after her last treatment. The discharge became rapidly more profuse, containing large pieces of sloughed tissue, and, despite frequent antiseptic vaginal douches, the odor was almost unbearable. The poor woman's stomach revolted at the thought of food in such an atmosphere, and for several days I combated inanition and impending septicæmia with stimulants alone. Even this was frequently rejected. The tenderness prevented satisfactory examination, but at the end of a week the tumor could be felt to have receded below the level of the umbilicus. Three months later it had entirely disappeared. My patient was confined to her bed two weeks, and in a month was able to go about the house. I have utterly failed, and I defy anybody else to convince her that her recovery is due to anything but my skill.

Case 3.—Mrs. C., white, æt 29, was delivered by me of an immature child, which survived but a few days. Gestation and parturition were typically normal. She had suffered prior to impregnation from dysmenorrhœa due to ante-flexion, and I was not surprised when, six months after her confinement, I was called to treat her for the same trouble. Examination showed the uterus ante-flexed, elongated and flabby. Excessive flow at the menstrual epoch might have been expected from this condition, but did not exist. A few weeks of intra-uterine treatment restored the organ to apparent health, and the next two periods were unattended by pain. The third period, however, was very profuse and painful. This condition was ascribed to to imprudence and over-exertion, and yielded promptly to a hypodermic of morphia and atropia.

Some ten days later I was hurriedly

summoned, and learned that my patient, while putting up her hair, was suddenly prostrated by a violent bearing-down pain and profuse hemorrhage from the vagina. The flow of blood had nearly ceased at my arrival, but the expulsive efforts persisted. I found the upper part of the vagina occupied by an exceedingly sensitive body, which, from its velvety feel and the constricted collar surrounding its upper part and continuous with the vaginal surface, could be nothing else but an inverted uterus.

The redundant supra-pubic fatty tissue prevented external palpation, but my diagnosis was verified by passing a sound to a uniform depth of half an inch completely around the body, in the sulcus between it and the constricting cervix. Suspecting a fibroid, I tried in vain to locate it somewhere in the uterine wall. The whole body was alike excruciatingly sensitive, and a specular examination showed no difference in structure or appearance in any part of the extruded organ. Manipulation failed to effect reposition, so I passed a colpeurynter into the vagina, and distended it with hot water. This gave great comfort, and, after eight hours, I proved that the uterus was restored to its proper place by passing a sound two and a half inches into its cavity.

I kept my patient in bed for a week, and tried to restore tone to the uterine muscles by a mild current through the large coil of an Engelmann battery. The application was thoroughly grateful and apparently effectual. She had been about the house for several days, feeling very comfortable, when suddenly, and without provocation, the uterus again inverted itself, with similar pains and bleeding. It was again replaced, but in a few days came down again and persisted in its gymnastic aberrations, until

at the expiration of four weeks it would descend whenever the colpeurynter was left out of the vagina a few hours. By this time I was able to detect, on its anterior and most dependent portion, a slight prominence less markedly sensitive than the rest of its surface. My patient being anæsthetized, assisted by Dr. S. J. Montague, I seized hold of this prominent portion with a vulsellum forceps, and, guiding a curved scissors with the index-finger, while Dr. Montague held the forceps firmly, I incised the mucous membrane at the junction of the protu-

berance with the wall of the uterus, until I could pass the point of my finger into the cut, and with little difficulty I enucleated a deep-seated fibroid of the size and shape of a small hen's egg. Only the smaller end was covered with mucous membrane. My patient made a rapid recovery.

We learn most by our mistakes. Much more might be said in elaboration of these cases, so instructive to me, but my brief notes may serve to counsel or warn some of my confrères under similar circumstances.

MILD CONJUNCTIVITIS.

BY W. H. WAKEFIELD, M.D., Winston, N. C.

The mucous membrane of the eye being constantly exposed to external influences during waking hours, receives injuries without number; hence attacks of conjunctival inflammation, mild or severe, occur to every man during the course of his life. The causes of conjunctivitis, however, are not all extra-ocular. Uncorrected refractive errors, lack of muscular balance, beginning presbyopia and incipient cataract are not infrequently accompanied by conjunctivitis. This affection displays many diverse types, from a simple hyperæmia, which generally disappears in a few days, leaving no perceptible trace behind, to acute purulent ophthalmia and granular lids. We will confine our remarks to the mild forms, leaving the graver types for future consideration.

Simple conjunctivitis may be caused by irritating gases, such as smoke; by the presence of a foreign body under the lids; by obstruction of the lachrymal passages; by nasal catarrh; by eye-strain, either from uncorrected refrac-

tive errors, or lack of muscular balance, or by a "run-down" condition of health. The causes, in any particular case, continuing to operate, the disease may become chronic, and occasionally is very difficult to dislodge.

The objective symptoms consist principally in a reddened condition of the mucous membrane of the lids or eye-ball.

The patient complains of more or less irritation, itching, burning of the lids, lachrymation, and not infrequently insists that a foreign body is under the lids, although painstaking search reveals nothing but some filaments of mucus. If these filaments lie upon the cornea, they produce the disturbance of the vision so often complained of in this affection. Visual disturbances produced in this manner are easily diagnosticated from those caused by corneal opacities, as the act of winking brushes off the mucus and promptly restores vision. Severe pains are, almost without exception, absent, and if, during the progress of the case, violent pains arise, we are led

to suspect implication of the cornea or iris.

In the treatment of these cases we should endeavor to remove the cause. If lachrymal obstruction be present, it were a pious hope rather than a reasonable expectation to anticipate the cure of the conjunctivitis without first putting the lachrymal canal in a healthy condition.

Symptoms indicating the presence of nasal catarrh should not be overlooked, as experience is not wanting to show that many cases of conjunctivitis owe their origin to a diseased condition of the nasal passages.

In prescribing for the relief of mild conjunctival inflammation I have learned to avoid the use of active, irritating agents. The disease under consideration is *mild conjunctivitis*, and active, energetic treatment by means of nitrate of silver or sulphate of zinc solutions, or yellow oxide of mercury ointment, is, in my opinion, positively contraindicated. Should the case be rebellious and show any tendency to develop into a more aggravated form of inflammation, treatment by means of these strong antiseptic astringents is in order, but the type under consideration yields much more readily to milder measures. The remedy in general use among ophthalmic surgeons for conjunctival disease is boric acid. As with almost every other drug known to our science, boric acid has its advocates and also those who decry it. Some speak of it only to say it is useless, but the consensus of opinion of those who have had ample opportunity for testing its influence is highly in its favor. It can be used in the strength of a saturated solution, 16 grs. to the ounce of water, but owing to its precipitation from a solution of this strength when the temperature falls below 60° F., I prefer to

use a 12 gr. solution. In this strength it is slightly antiseptic, astringent and detergent. The cleansing qualities of the lotion are enhanced and its application rendered more soothing by the addition of sodium chloride, 4 grs. to the ounce. Camphor is another agent that I have found useful. Its antiseptic and astringent properties are well known.

A favorite formula of mine, varied to suit individual cases, is :

℞.—Acidi boric.....grs. xij
Sodii, chlo.....grs. iv.
Aquæ, camph.....ʒ i to iij
“ rosæ, q. s... ʒ i. M.

I instruct the patient to instill into the eyes 2 or 3 drops every two to six hours, according to the amount of discharge and congestion of the membrane. Bathing the closed eyes in water at a temperature of from 40° to 60° F. has a decided antiphlogistic effect. This bathing should be continued for 10 to 15 minutes, and repeated three or four times during the day. Hot water (not warm, but *hot* water) may be substituted for the cold, if the latter be unpleasant, or for any reason it is advisable not to apply cold to the patient. If the lids glue together in the morning, the removal of the crusts will be facilitated and the patient's distress lessened by anointing the lashes and lid-margins, at bedtime, with a salve made by thoroughly incorporating 5 grs. of calomel with 1 drachm of vaseline. In not a few instances this salve has seemed to exercise a decidedly beneficial effect when a small quantity was placed between the lids on retiring for the night.

We should not pin our faith to any one or two remedies to the exclusion of others, but be ever on the alert to give our patient the “benefit of a change” if we find a favorable termination delayed. Of course, if refractive errors

or muscular insufficiencies exist and the conjunctivitis continues, these anomalies must be corrected, and it goes without saying, the general health of all patients should have careful attention.

The point I desire to emphasize is simply this: Do not aggravate the

case and prolong the period of suffering and treatment by using remedial agents that are too energetic and irritating.

Such treatment, in the large majority of these mild cases, is worse than no treatment.

REMOVAL OF LARGE FIBROID BY ABDOMINAL SECTION—AN EFFICIENT AND COMFORTABLE DRESSING FOR FRACTURED CLAVICLE.

BY H. O. HYATT, M.D., Kinston, N. C.

During May, of last year, Mrs. P., aged 35, came to me for examination. She stated that two years ago she discovered a tumor growing in lower part of abdomen, which had increased steadily ever since, and was interfering with micturition and defecation.

Vaginal examination: Cervix jammed behind symphysis, a large, round, hard body filling the retro-uterine space and pressing upon the rectum. Fundus of uterus plainly felt through thin abdominal wall above symphysis. A round, large mass filled the left flank, extending six inches above pelvic border. Attached to, and forming part of, the same tumor, was an oblong mass extending upward on the right of the median line above the umbilicus. Operation advised, to which patient objected. Did not urge her. Told her when she was ready she could come to my sanatorium and be operated on.

Two months afterwards she came, eager for the operation.

She was prepared in the usual manner, the operation done under strict asepsis, Drs. Woody, Tull and Gates assisting. Incision extended from a point one inch above symphysis to an inch below um-

bilicus. A large, roundish, smooth tumor of bluish color and covered with enlarged veins, presented itself to view. Exploration discovered no adhesions. One end of the tumor dipped down behind the uterus, the other portion filling the folds of the right broad ligament, the ovary lying on its upper surface. The uterus was imbedded in the anterior face of the tumor, its peritoneal covering extending from the fundus up and over the tumor.

Incised the capsule and pulled out the tumor. The sack made a very large and long pedicle, which was fastened in lower angle of the wound. The small amount of bleeding from the sack was promptly checked by filling it with gauze wet with hot water, which was removed before pedicle was fixed. The peritoneum was closed by continuous catgut, the skin, muscles and fascia by interrupted silk sutures. Weight of tumor 20 pounds.

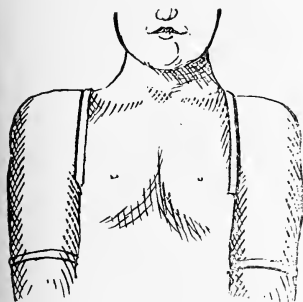
Menstruation came on two days after operation. Recovery uneventful, save a slight fever during second week from stitch abscess. Patient went home five weeks after operation in good condition. She has been well ever since.

AN EFFICIENT AND COMFORTABLE DRESS-
ING FOR FRACTURED CLAVICLE.

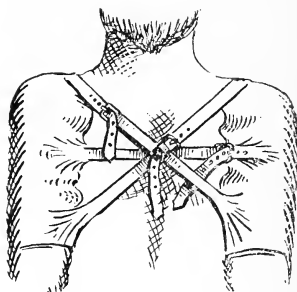
The routine in just apposition of fractured clavicle when the fracture involved the outer or shoulder half of the bone, to me has always been a trouble and a great inconvenience to the patient. The bandages heretofore used by me were hard to keep in place and very tiresome to patient. For these reasons I was led to devise the following method. I soon had an opportunity to test its merits in the following case :

J. R. P., a very strong, muscular man, aged about 56, fell from the loft of his

barn and broke his right clavicle at about the junction of outer and middle third. When seen there was a deep depression at point of fracture, the pectoral muscle pulling the shoulder in. The inner end of the bone elevated and overriding the scapular end. His wife, Mrs. P., an intelligent and thrifty housewife, fashioned, under my direction, the following : Using a stout piece of ducking, she made a pair of short sleeves for each shoulder. The upper and inner border of the sleeves came just in front of the inner border of deltoid and fitted over the point of the shoulder very snugly. Cuts 1 and 2 clearly show the



No. 1.—Front.



No. 2.—Back.

method of fitting and application. After adjusting the sleeves the middle straps are drawn tightly and buckled; strings sewn on and tied will do just as well. The arm is then held up by means of the ordinary handkerchief sling. This brings the ends of the bones on a line. The other straps or strings, as represented in the 2d cut, are then fastened. The ends of the bone come nicely together and can be held so with comparative comfort

to the patient. Under the arms and over the pectoral and deltoid muscles, where the edges of the sleeve are apt to cut, was protected with absorbent cotton.

The result of this dressing was cure without knot or other deformity.

Others may have used this or a similar dressing. They probably have. Since its use I feel somewhat surprised that I have not always used it.

A CASE OF PUERPERAL SEPTICÆMIA.

BY B. T. BITTING, M.D., Rural Hall, N. C.

I was called to Mrs. M., æt 26, during March, 1893; she was in labor; it was her second confinement. Finding the fetal positions and presentations normal, I soon delivered her of a 13½ pound male child, the largest I have ever seen.

I had no trouble in getting good uterine contraction, consequently I had no hemorrhage of any note. I had no trouble in delivering the placenta with all membranes, and found no lacerations. As I usually do, I washed out the interior of uterus with an antiseptic solution of carbolic acid, strength 1 to 40, removing all blood-clots, thereby rendering the parts thoroughly aseptic. This I ordered to be done night and morning for several days.

After about two and a half hours I left the patient in fine condition, with no unfavorable symptoms whatever.

On the third day she was taken with a chill, followed by elevation of temperature. I was at once called to her bedside, finding the pulse 120, temperature 103°, patient very restless, suffering from intense pain in region of uterus and appendages. I at once recognized I had a case of puerperal septicæmia to contend with. I immediately prescribed as an antipyretic and internal antiseptic 5 grains phenacetine combined with 3 grains sulphate quinine, to be given every three hours, followed by one tablespoonful of brandy.

I used an application of turpentine externally over seat of inflammation, and continued the antiseptic injection of carbolic acid, increasing the use of it to four times a day. I continued this treatment for several days, visiting the patient every day. Much to my sorrow her

pulse had reached 135, and temp. 105½. Inflammation had increased to a considerable extent, producing very marked tympanitis. I at once recognized the fact that some other means must necessarily be resorted to in order to save the life of my patient. I changed my antiseptic solution to the bichloride of mercury, strength 1 to 2,000, to be used at same intervals as carbolic acid solution. After thoroughly stimulating my patient, I changed my antipyretic from the above-mentioned to the application of a wet sheet wrung out of cold spring water every half hour, carefully noting the pulse and temperature. Finding I could not reduce temperature as much as I wished with spring water applications, I applied several cold packs of sheets wrung out of ice-water, and by this means I succeeded in reducing temperature to a satisfactory point. I continued this treatment, with the exception of the cold pack, and with the addition of sulphate quinine and tr. chlor. iron as tonics. I also continued the turpentine application and free use of brandy. I visited the patient every day. Had no further trouble in controlling temperature. She began to improve, and, after several weeks, made a complete recovery.

There being an epidemic of typhoid fever in that section at the time, pretty soon after recovery from her first trouble, she contracted typhoid fever. I was again called to see her, and, after about three months hard work, I again succeeded in bringing her to recovery.

I used in the latter case the modern treatment for typhoid, believing it to be the best.

Clinical Lecture.

DISEASES OF THE CORNEA.

Delivered by J. A. WHITE, M.D., before the Class of the College of Physicians and Surgeons, Richmond, October 19, 1893.

(Continued from page 66.)

Ulceration of Cornea.—Cases 4, 5 and 6, showing ulceration of the cornea and one of its consequences, belong to the most dangerous form of keratitis. In the one case we have a small crescentic ulcer, looking as if a small piece had been chipped out of the cornea near its edge, and there is a decided vascularity of the conjunctiva near the margin, with a slight cloudiness in the vicinity of the ulcer. This other case has a much larger ulcer, not quite so deep-seated, having a more decidedly cloudy appearance, and in its immediate vicinity an old clouding of the cornea, resulting from the healing of a former ulcer.

Now, in both these cases we have very decided interference both with the polish and transparency, and whilst there is no change in the curvature, as far as we can make out, there is a very decided loss of substance.

In such cases there is always a lack of nutrition, both local and general. Some (as one of those before you) appear to be in apparent good health: nothing in this patient's appearance would indicate that his nutrition was defective, but we rarely ever have ulcer or abscess of the cornea, except in persons who are more or less badly nourished, whether the cause of the ulceration is some traumatism or injection, or seems to start idiopathically. Sometimes the most trivial causes will set up ulceration of the cornea: a speck of dust in the atmosphere lodging in the cornea, a cinder

from a railroad train, a slight abrasion from a little switch on a tree in riding or passing by. Such causes as these, which happen to hundreds of people continually, without doing any damage, may set up the most intractable ulceration that might destroy an eye in persons whose system is ripe for such an occurrence. Sometimes ulceration starts without much discomfort; in other cases there is at first a feeling of grit in the eye, as if there were a cinder in it, followed by considerable discomfort and pain.

I have had patients to apply to me, stating that there was a cinder in the eye, where the most perfect and accurate examination with the best light, and with a magnifying glass, could not reveal the slightest trace of trouble about the cornea, although the eye might have been slightly injected.

In such cases I have often turned the lids inside out and searched carefully for some foreign body without success, and in the course of two or three days I have seen a slight ulcer of the cornea develop.

Now, I cannot exactly understand why the subjective symptoms precede the objective manifestation of the ulcer. I do not find the books refer to anything of this kind, but I have had many cases where this has been true.

The great danger about all forms of ulceration of the cornea is the destruction of the cornea or of the greater part

of its surface, bringing about complications that might injure the eye before you are able to carry the proper nutrition to the necrosing portion of the cornea, because ulceration is nothing but a necrosis of the corneal tissue, whether superficial or deep.

Lines of distinction are drawn between *superficial* ulceration and *deep* ulceration, between *indolent* and *active* ulceration, etc., of different forms; but in my experience, whilst different forms of ulceration of the cornea present definite clinical pictures at certain stages of their course, still in the incipency it is very difficult for anyone to determine what form of ulceration he is dealing with. As the main object of treatment is the same—to carry nutrition or nourishment to the ulcerating surface or tissue, to prevent its spreading by destroying any infectious elements, or any germ-life that may be responsible for the destruction of tissue, it makes very little difference what form it is in, if you bear in mind the grave importance of every kind of corneal ulceration, and the advantage of early and proper treatment.

As soon as a patient comes to you with an ulceration of the cornea, whether large or small, whether superficial or deep, you must recollect that you have got to restore the necrosed tissue by direct nourishment from arterial twigs brought from the neighboring vessels, and the treatment must be directed to the production of this vascularity. Internally the patient must be put on tonics, and in my experience iron and quinine are the best.

Locally the first thing to do is to thoroughly disinfect the eye, and if there is much pain instil a solution of cocaine until the discomfort is sufficiently relieved to allow of a satisfactory examination; wash out the eye thoroughly

with a solution of bichloride of mercury, cleanse the cornea and examine the ulcer carefully.

If this is situated towards the periphery, and there seems to be any depth to the ulcer, with danger of perforation, you must contract the pupil, and bring the eye under the influence of eserine, or pilocarpine. If the ulcer is situated towards the center, you must dilate the pupil with atropia. The object of this is, should there be such a misfortune as perforation, to prevent the iris from falling into the wound and becoming adherent. Then you must, as I have stated before, destroy any infectious material or germ-life about the ulceration and keep it aseptic. The best way of doing this is by the application of heat: with a platinum probe, with a bulb which has been heated in a spirit-lamp, gas-flame, or otherwise, touch the whole surface of the ulcer, and particularly around the margin. You need not use white heat, a dull red heat will do. You need not burn deep, but simply run this heated probe gently over the whole surface, and then dress the eye with a bichloride pad, and some hours afterwards you can examine the eye to see its condition, but open under strict antiseptic precautions. My rule is to flood the eye with a bichloride solution. Sometimes considerable pain follows this treatment, which can be relieved by giving internally some mild anodyne.

In addition to the aseptic and stimulating treatment of the actual cautery, we must do something further to stimulate the nutrition of the part, and in my experience nothing is superior to applications of heat. I use water just as hot as can be borne, in which I have dissolved a little bichloride, making a solution of about 1 to 4,000, which is kept as hot as it can be borne, and applied to the closed lids for 15 or 20

minutes every three or four hours, followed by the instillation into the eye of a salve composed of a myotic or mydriatic (according as you wish the pupil contracted or dilated), a little cocaine and aristol, or iodoform. The ulcer will not heal, and will remain stationary, or keep spreading, until, with the magnifying-glass, you can see distinctly blood-vessels passing over the margin of the cornea up to the edge and into the ulcer. As soon as you have feeding vessels to the ulcer, you need give yourself no further uneasiness, but until that is accomplished I do not know any case that gives the ophthalmic surgeon more uneasiness than ulceration of the cornea; it sometimes proves very intractable to treatment; just when you seem to have reached the goal of checking the disease, something takes place which apparently upsets all your previous work and starts the ulceration afresh. They are most discouraging troubles to treat and require a constant uphill fight, but just as long as perforation is not threatened the victory is assured sooner or later, and that, too, in most cases, without any very serious damage, because if the ulcer is centrally located, even if deep, an artificial pupil opposite the clear part of the periphery will give a good eye, and if peripherally located, although there is a blemish upon the eye, the sight will be good. Many cases require the application of the actual cautery more than once. I have had to burn the ulcer before I succeeded in arresting its progress as often as half a dozen times. Where perforation is threatened the cornea ought not to be allowed to give way spontaneously.

If the ulcer is so deep that there is no way to prevent perforation, a small needle may be passed through the bottom of the ulcer, making an artificial, instead of a spontaneous, rupture of the

cornea. But it is better where perforation threatens to prevent it by doing a paracentesis, i. e., tapping the anterior chamber at the sclero-corneal border.

Paracentesis is, in many cases, of great utility, not only in preventing the perforation of the cornea, but in giving relief to the pain and inflammatory symptoms. But the difficulty about both this method of treatment and the use of the actual or galvano-cautery is, that the patient will not always submit to them.

It is very difficult to get people to understand that you are going to cure their eye by burning it or cutting it, and as long as the disease has not made much headway, they will not consent; it is only when driven to it by suffering, constant recurrence, and seeing that the disease seems intractable to all other treatment that they are willing to submit to these measures.

Where perforation takes place we have a series of complications. In the case before you, where perforation of two different and distinct ulcerations—one at the upper and one at the lower edge of the cornea took place, you see the peculiar result. The iris fell into, and plugged up, both openings, with the result of showing you a very peculiar picture—you have a white patch with a little black dot in it at the upper margin of the cornea and a smaller condition of affairs at the lower and outer margin. Instead of having a round pupil you have a slit running from above downwards and outwards.

You will observe here, as I mentioned before, that the central part of the cornea is clear and transparent, and consequently this child gets good vision through the slit, notwithstanding the fact that the ulcerations seem to have been large and extensive, and both followed by perforation. This is an ex-

ceedingly lucky termination of such a trouble.

Perforation of the cornea, resulting from ulceration, not only brings about *prolapse of the iris*, as you see here, with adhesions to the cornea, but if the ulceration were extensive, might result in a large *staphyloma* or a projection of the cornea and iris, or the lens might be dislocated, or even emptied out of the eye through the perforation, or purulent inflammation of the eyeball might be set up, with total destruction of it.

Non suppurative Keratitis.—The next three cases are cases of *non-suppurative keratitis*—one of superficial vascular keratitis, another of interstitial keratitis, and a third of keratitis punctata or keratitis profunda. Non-suppurative keratitis differs from suppurative keratitis in having only two stages instead of three. In suppurative keratitis we have (1) the stage of infiltration; (2) the stage of suppuration; (3) the stage of repair or cicatrization. In non-suppurative keratitis the two stages are (1) of infiltration and (2) of absorption. But in order to get absorption in either form, we must bring about a vascularization of this non-vascular tissue. In other words, as above stated, we must carry nutrition to the affected tissue by means of blood vessels.

This case of *Superficial Vascular Keratitis*, which usually complicates some conjunctival disease, and is often associated with superficial ulceration, has already a partial vascularization of the cornea set up by some pathological process, which, in this case, seems to be somewhat obscure, for you will observe that the trouble seems to be limited to the upper part of the cornea, encroaching only upon its upper margin. The rest of the cornea is clear.

This vascular condition of the cornea, frequently denominated *pannus*, shows

itself in different forms, from a partial vascularization of the surface through different phases to a dense vascular opacity made up of connective tissue and blood-vessels covering the whole of the cornea. The worst forms of vascular keratitis or pannus are usually the result of the irritation kept up by trachoma or granular lids, of which you saw an example at our last clinic. In the case before you there is no trachoma, and what brought about this vascular change in the cornea without some local irritation, or without being propagated from the conjunctiva, I cannot say. Frequently this condition is accompanied by a small ulcer which seems to creep over the cornea towards the centre, followed by a leash of blood-vessels, and is known as fascicular keratitis or dendritic keratitis. It then belongs rather to the form of suppurative keratitis.

The second case, showing *Intestinal Keratitis*, is a typical form of non-vascular inflammation, so frequently instanced as an example of how inflammation can come about without vascularity, or in a tissue without blood-vessels.

You will observe that the cornea, instead of being brightly polished and perfectly transparent, has the appearance in one eye of a piece of ground glass that has been greased, and in the other of ground glass, as you ordinarily see it.

Of course, with the eye that has the appearance of having been greased, as I have said, the patient sees more, because the infiltration is less than in the other one. There is, all around the cornea, a rosy zone at the sclero-corneal border, the only evidence of inflammation, and the most careful scrutiny does not reveal any loss of substance, the surface being as smooth as in a healthy cornea.

The loss of transparency is evidently

due to an infiltration or deposit underneath the surface of the cornea, under its anterior layers, in the corneal tissue proper, and is probably due to alteration in the cellular elements in the lymph channels and lymph spaces of its stroma. The subjective symptoms complained of are, that the patient does not see well, or does not see at all, and has some intolerance of light, which is greater in some cases than in others. This trouble is more common in childhood, appearing usually after the fifth year, but I have seen it also in adults, but not so commonly as in minors.

The cause is some constitutional trouble, bringing about ulceration in the nutrition of the cornea; inherited specific disease or acquired syphilis are probably the most frequent causes.

Most of the children who show this trouble have signs of inherited specific trouble—they have the broad, flat forehead, the flat bridge of the nose and the peculiar teeth, club-shaped and notched, known as Hutchinson's teeth. But whilst there is no question about the fact that specific disease, inherited or acquired, is the main cause of this peculiar affection of the cornea, there are numbers of cases where the closest scrutiny does not reveal any manifestation of the specific inheritance, or of the acquired syphilis; so that you must not always conclude that this disease is present in every case. Rheumatic diathesis sometimes underlies this manifestation. Excess of uric acid can produce it, and particularly in adults where we have iritic complication, which is known as *kerato-iritis*.

I have seen, in all probability, as many cases due to this cause in adults as to any other cause. Not so, however, with the children, as a very large majority of them are the victims of specific disease transmitted from their parents. The

treatment is therefore practically outlined in giving you the etiology. It is to combat the inherited or acquired blood-taint. The use of iodide of potash is an essential basis of the treatment, and this is valuable for both the specific and rheumatic cases. To use it with any satisfaction it has to be given in gradually increasing doses to the very fullest extent that can be borne by the patient. This thing of giving iodide of potash in 3- to 10-grain doses in some menstruum three times a day, in my experience, does little or no good.

I always use a saturated solution of the drug, i. e., I take 1 oz. of iodide of potash and rub it up with water, adding gradually water enough to make a measured liquid ounce (1 oz. of the liquid solution will then contain in each drop 1 gr.) This I use for children or adults. With children I begin, according to the age, with 1 drop in water three times a day, and increase it until the child shows evidence of getting under its influence. I have carried the dose in children as young as 3 or 4 years of age up to 15 or 20 drops three times a day without any inconvenience, and with a very rapid result. In adults I begin with 10 drops, increasing 1 drop every dose, until they are taking a teaspoonful three times a day, which is about 75 grs. at a dose.

In my experience there are very few people that cannot take it, even in those cases where it seems to disorder the stomach at first. By giving it in the way suggested, with plenty of water or plenty of milk, in either of which menstruum you can give it, I have found they get thoroughly accustomed to it, so that it is no exaggeration on my part to say that they thrive on it, and even get fat on it.

This is the basis of the constitutional treatment—tonics usually are associated

with it. In cases distinctly shown to be rheumatic the salicylates or salol may be substituted for the potash.

If an iritis complicates, as it so frequently does, causing a good deal of pain, anodynes have to be used. The local treatment is one of stimulation, hot applications and the use of local remedies to improve the local nutrition. My usual remedy is a salve composed of yellow oxide of mercury, aristol and atropia in vaseline. The object of the atropia is to keep the pupil dilated, as far as practicable, because, although there is very little absorption of the mydriatic through the opaque cornea, we must keep the pupil dilated, if possible, because of the danger of iritis complicating these cases.

The salve is applied twice a day to keep up a certain vascularity in the limbus of the cornea, and give all the nutrition possible to the diseased tissue. The patient should be kept as much as possible in the open air, with plenty of exercise, and the intolerance of light, if any, controlled by wearing smoked glasses.

The disease is a very tedious one in its course; it will run anywhere from six or eight weeks to as many months, and in exceptional instances much longer than the latter period, before entire recovery is accomplished.

As a rule, under judicious management, these cases will recover entirely, so that, although they go through a period of blindness, they recover their sight as good as it was before the attack. In some instances, however, complications arise which leave some permanent defect of vision.

This last case is one of *Keratitis Punctata*, also a non-suppurative form of keratitis. You will observe that the anterior polish of the cornea seems to be all right, that in places the transpa-

rency is apparently normal, whereas in other places there are spots apparently due to some deposit on the inside wall of the cornea. This is an inflammation of the posterior layer, or the membrane of Descemet; it is almost invariably associated with iritis, and is also, like interstitial keratitis, a tedious trouble to get rid of. There are frequent recurrences, the cause of which is, as in most troubles, constitutional, from some alteration of the blood—something that changes its influence over the corneal nutrition. Most of the writers attribute it to rheumatism or gout as the principal cause. The treatment is atropia locally, and internally iodide of potash and tonics, with anodynes to combat the pain.

Of course you will find in your books for the treatment of all these troubles a variety of remedies given. As I do not care about burdening your mind with those, I have simply given you what I have found the best in my experience.

If, when you meet such a case, the remedies that I suggest do not give satisfaction, you can then go to your books and look for some others; but in some of the text-books so many remedies are suggested for this, that and the other trouble, that a man without experience is perfectly at sea as to which to choose to begin with.

UNUSUALLY LARGE OVARIAN TUMOR.—Maritan (*Gaz. Med. de Paris*) removed an ovarian cyst weighing two hundred pounds from a patient whose weight before the operation was two hundred and ninety pounds, her circumference at the umbilicus being ninety inches. The length of the abdominal incision was about twenty-eight inches. The patient suffered from collapse, but made a good recovery.—*American Journal of the Medical Sciences*.

Selected Papers.

THE EARLY DIAGNOSIS AND PRACTICAL SURGERY OF CANCER.

BY HERBERT SNOW, M.D., London, Eng.

That a considerable proportion of the cases operated on for malignant disease fail to secure their due measure of success, simply for want of timely recognition, is, to the practical surgeon, a mere truism. The obstinate tendency of "cancer" to "recur" was of old explained by a supposed "constitutional origin." Modern science more correctly attributes this to the infective and autotoxic properties of the cells concerned, with the early transmission of nuclear fragments by blood or lymph currents to other parts than that primarily attacked. Hence the vital necessity for a prompt diagnosis, in localities amenable to the resources of surgery, of actual or potential malignancy, before this transmission has had time to take place, or at least to proceed very far.

To recognize a malignant growth in its later stages is always easy; to gauge with accuracy its real nature from the early inception of the disease-process is often extremely difficult. Yet a fairly confident idea of the state of the case may generally be acquired by due regard to certain *a priori* probabilities, in addition to the physical signs proper to each individual instance. Thus, malignant lesions are specially prone to attack degenerating organs and degenerating people. With the exception of a numerically small congenital group of tumors, which I have elsewhere classified under a special term, *Blastoma*, and which mostly differ from ordinary cancer in arising spontaneously, malignant new-growths are almost entirely restricted

to women above the age of thirty-four, to men past forty. Further, they appear in organs which have fulfilled their functional purpose and are undergoing devolution, as now effete appendages, e. g., the sexual organs of women; or else in tissues whose vitality has become conspicuously impaired, such as the buccal mucous tract of men. Hence we are bound to look with grave suspicion upon any incipient tumor-formation in these parts of the respective sexes; in people growing old; in those whose general health and energies have, from any cause, become markedly undermined.

Thus, in a judicial estimation of the *pros* and *cons* under such circumstances, the two items which most prominently demand attention are first, the *age* of the individual, and secondly, the *history* of the case. In the female *mammæ*, the age of 38 years forms a rough limit, which I have often found of great practical use. Under that period there is much probability in favor of the non-malignant character of any doubtful "lump." The boundary is only not absolute, because in some women the *mammæ* begin to degenerate a little sooner than in others. We meet with a few instances of carcinoma as early as 34—very rarely before that period. On the other hand, every tumor first noticed in the breast, at or after the 38-years epoch is, in the great majority of instances, primarily malignant; in the remainder is certain, sooner or later, to become associated with malignant fea-

tures in one form or another. From this sweeping rule, the most simple cyst within the gland parenchyma, a dilated acinus or dilated duct, is not exempt. In the course of a few years such is found to undergo rapid increase and produce severe pain. On removal, either carcinoma is found to have attacked the acini contiguous to the cyst wall, or else intra-cystic vegetations, carcinomatous or sarcomatous, have sprouted within. Whereas, on the other hand, the "fibroma of adolescence," a hypertrophic induration in the mammae of young girls, which presents some outward resemblance to an incipient scirrhus, and often excites much needless alarm, is a very harmless affair, disappearing under pregnancy or with proper treatment, and rarely needing surgical interference at all.

Again, it may be laid down as a practical axiom that no average species of malignant tumor in the adult ever appears without an adequate and generally ascertainable exciting cause. About 11.7 p.c. of cases of breast cancer follow sudden injury, a blow or fall; the remainder are consequent upon some agency; of a neurotic character, impeding the normal devolution of the mammae. Most often in these hard times mental distress from loss of a relative, loss of money, etc., appears as the immediate antecedent; sometimes exhausting illness of any kind acts in the same manner. I have known one or two cases follow an attack of influenza. Failing these, we find an account of hard toil, privation, or of especially laborious occupation. Among the last named, laundry work, in my own experience, stands pre-eminent. When a middle-aged woman comes to the Cancer Hospital with a breast tumor and says she has been a laundress, I have learnt to regard the growth as almost certainly malignant.

To the uterus, again, which, with the

female breast furnishes more than half of all cancer cases, the same applies, excepting only that this organ seems to commence its obsolescent stage a year or two before the mamma; and so cases of cancer at the age of 34, or even earlier, are by no means uncommon. Exactly corresponding antecedents are here also found to have been in operation; the injuries suffered by the uterus at parturition or miscarriage parallel a breast-contusion; most of the patients have recently suffered great trouble. From the example of these two leading cancer sites we learn to regard the age and the personal history as the two foremost elements toward correct diagnosis, not only in them, but with the majority of malignant developments elsewhere.

Having thus, first of all, considered *a priori* probabilities, we should then pass on to the signs, objective or subjective, known to be indicative of a malignant growth. Keeping before us the special female organs as illustrations, it may be noted that most mammary cancers are characterized by extreme *hardness* on palpation; yet this feature may be obscured by copious fat, and is wanting in the more acute forms. On the other hand, it may be simulated by a small chronic abscess amid dense fibrous tissue, as at the root of the nipple; by milk concretions, etc. The very intermittent *lancinating pain* of chronic (scirrhus) carcinoma is well known; but this also may be present in chronic supuration, and is wanting in encephaloid (acute) carcinoma. Both pain and hardness are results of tension, of exuberant cell-growth within a stroma of resisting fibrous tissue.

Reaction of the nuckle is an old textbook symptom, very often wanting, and extremely unreliable as an indication of cancer. Local *puckering of the skin* over the growth is a valuable physical sign in

superficial scirrhus; is long absent when this disease begins in the deeper parts; does not occur at all in the acute (encephaloid) variety. *Enlargement of lymph glands* in the corresponding axilla is very early noticeable in these scirrhus patients; is readily obscured by fat or by "softening;" is inconspicuous in encephaloid carcinoma until after excision of the breast, when it undergoes rapid increase. But some degree also attends chronic suppurative processes within the parenchyma, and the glands may have previously undergone slight hypertrophy from pregnancy, etc., hence it is always desirable to examine both sides. A careful estimation of all the conditions, present and past, generally leaves very little room for doubt as to the nature of any suspicious case in a woman of the cancer age. An *exploratory incision* will often save a valuable life, and can never do appreciable harm.

Hyperæmia is a marked feature of all malignant diseases from the very first. In uterine lesions, early and obstinate attacks of hemorrhage, or progressively aggravated hemorrhage, in a woman who, on the grounds formulated above, may be regarded as predisposed to cancer is the natural consequence, and should induce a prompt local examination. Obvious *physical weakness*, daily increasing, *lumbar pain*, *fetid discharge*, are phenomena which confirm suspicion of cancer, but which may also proceed from other causes.

The male sex differs conspicuously from the female in the non-possession of structures which, like those above referred to, pass through a period of activity followed by a long stage of devolution and of entire inutility to the organism. So men furnish a relatively small proportion of cancer cases, and would even less often thus suffer were it

not for certain noxious habits. They are necessarily more prone to sarcoma than women, from their more laborious occupations and greater liability to hard knocks or sprains. But the majority of male cancer-patients suffer from epithelioma of the lips, tongue or buccal tract generally, the mucous membrane having previously become unhealthy and of low vitality. A very considerable proportion show marks of antecedent syphilis; others are alcoholic individuals, who also smoke, both of which practices directly deteriorate the epithelium. Men of the laboring classes rarely pay the attention which women do to cleanliness. The mouth, in particular, is commonly foul, and decayed tooth-stumps are seldom interfered with; hence the natural sequence of epithelial cancer, almost invariably the manifest result of neglect.

A form of cancer common to both sexes, which is specially apt to be confounded with a non-malignant affection, is that which primarily attacks the lymph glands. Twenty-four cases developed superficial glands are cited, with their mode of causation, in my work on *Cancers and the Cancer-Process*, p. 337; those which have appeared in the deeper organs are generally viewed and reported as "round-celled sarcoma of the small-celled variety." This species is commonly referred to as "lymph-sarcoma;" as the word "sarcoma" is already so overloaded with divers meanings, I prefer to entitle it "lympho-carcinoma," a term much more in accordance with its clinical course and natural affinities. It is also not seldom spoken of as "lymphadenoma;" but it has nothing in common with the malady to which that title more correctly appertains, viz: Hodgkin's disease, a general pyrexial disorder, involving the *synchronous* enlargement of numerous glands through-

out the body, usually after exposure to cold and wet. The cancerous neoplasm, on the other hand, follows traumatism, and is always gradually diffused from a single centre. Lympho-carcinoma unfortunately begins as a painless, gradual enlargement, first of a single gland, then of a cluster, in no way differing from that so often seen in young, delicate people of strumous tendencies. Here, however, we must particularly note the diagnostic value of antecedent probabilities. In children and the youthful of both sexes, the lymph glands readily enlarge on slight provocation: in the old the reverse is the case, and with such the slightest increase in bulk is highly suspicious. The cancerous process in these organs is seldom found under the age of 34, and is usually consequent on a blow or strain. Thus an enlarged lymph gland in the neck, axilla or groin of a boy of 15 is assuredly not malignant—at least primarily so; whereas one exactly similar in outward appearance, only occurring in a man of 40, not associated with an obvious septic cause in the vicinity (e. g., suppuration, syphilis), and following no mechanical injury, will almost as certainly prove to be an incipient cancer. Yet I have seldom or never met with one of these distressing cases, examples of one of the most virulent and rapidly extending forms of malignant lesion, in which the primary growth has not been assiduously painted for weeks or months with iodine. Such delay has necessarily involved extensive diffusion to distant glands and viscera, with consequent sacrifice of life. A prompt exploratory incision, followed by the free extirpation of all the glands which can be found near the diseased area—whether of increased dimensions or not—would alone have offered a chance of rescue.

In arriving at a conclusion upon any

doubtful case, it is thus always desirable to employ both general and local considerations to mutually balance and control one another. Of the need for this rule, too often neglected, the case of the late Emperor Frederick affords a striking example. He was a man of 50, and had occasion frequently to induce congestion of his vocal cords in the issue of martial orders. When, therefore, he began to suffer from steadily progressive laryngeal symptoms, the *a priori* probabilities in favor of epithelial cancer were very considerable. Yet, in fallacious reliance upon certain microscopic indications of no more than merely negative value, the only measure which afforded a prospect of cure was rejected, with quickly fatal result. The same historical event further demonstrates what is familiar to the practitioner in cancer, that the microscope for diagnostic purposes is of doubtful use. Its conclusions may be taken without hesitation, for positive purposes, but rarely or never for the negative. They may show that cancer is present, but cannot be trusted to prove its absence.

When we pass to matters of treatment, it is of equal importance not to lose sight of general principles. Malignant growths destroy life, as has been pointed out, by means of their infectivity, and by the metastases secondarily transmitted to more or less distant parts. The primary tumor often does little, sometimes practically nothing at all, to kill the unfortunate patient; it is the secondary offshoots with which we must grapple, if we wish to effect a cure. Now, carcinoma and epithelioma very rapidly, as a rule, infect the chains of lymph glands in the track of the lymphatics leading from the part affected. And the consequent increase in bulk of these glands does not palpably ensue until they have been for at least several weeks

the seat of malignant parenchyma. It is thus of vital importance always, in surgical excision of these lesions, at the same time to remove thoroughly all the dangerous lymph glands in the "infection path;" and this, if possible, before the enlargement has been suffered to take place. In the proper working out of this maxim, combined with early diagnosis, lies all the best hopes of improvement in the cancer-surgery of the future.

On the other hand, a true sarcoma does not (unless in very rare instances) attack adjoining lymph glands, by way of the lymphatic vessels. If then we find these structures enlarged in the neighborhood of such a tumor, we know that there are cell particles circulating in the blood with concurrent visceral metastases; hence, that the case is beyond the hope of cure by an operation.

For surgical purposes each individual instance of malignant disease must be regarded, and carefully dealt with, on its own merits. We have, in the first place, to consider the particular species concerned, with its liability to infect the lymph glands. Next we must think of the organ attacked and of its relations; of the tissues which are most readily involved, or which resist the advances of the infiltrating cells; of the age or physical condition of the patient; of the best methods of operating, etc. It is material to remember that, unless encapsuled, the palpable tumor-formation constitutes only a fractional portion of the part actually diseased; impalpable cell-colonies lurk far beyond the visible limits of the former. Fasciæ, capsules, tough fibrous structures in general resist the inroads of the advancing cell-army; soft and vascular tissues readily yield. Under some circumstances, as commonly when the tongue is the seat of advanced cancer, it is advisable not to

expose the individual to any considerable hemorrhage; and a burning instrument, such as the galvanic *écraseur*, is preferable to the knife or scissors. Local escharotics are useful for small superficial lesions, never for such cancerous growths as infiltrate the tissues deeply; the best is *potassa fusa*, its action, (and with this all pain) ceasing instantaneously on contact with water. Tincture chloride is efficient, but horribly painful and barbarous. Even for purposes of temporary palliation it is often of more advantage to the woman to clear out thoroughly her axilla than to amputate the primarily affected breast. Severe and protracted operative procedures upon persons already in an exhausted condition from long-standing malignant disease are greatly to be deprecated. Under existing conditions of practice, wherein cancer is seldom brought under the notice of the operating surgeon in its incipient stages, comparatively few operations should take place; but these should be searching and thorough. We shall do more in the future by carefully perfecting those methods of treatment we already possess than by too eager a search for novelties.

Regarding cancer, lastly, from its medical aspects, nothing is more pernicious, either to the sufferer or to the profession, than the custom, which has somehow crept in, of withholding opium from the average patient until he or she is worn out with pain. This it is which combined with the results of hesitant diagnosis, so conspicuously impels these unhappy people to the ever-blattant quack. Opium, persistently given from the earliest moment at which there is reason to believe the disease incurable by surgical means, not only materially prolongs the individual's life, but also has often a most marked influence in arresting the progress of the growth.

A carcinomatous breast thus dealt with previously to the stage of ulceration, may often be successfully diverted from a rapidly advancing tumor into that withered "atrophic" induration which permits many years of fairly enjoyable life. With this should be conjoined as passive and vegetative a mode of existence as possible; and to such careful

nursing will materially conduce. Cocaine-hydrochlorate internally administered is a useful adjunct to the opiate treatment. Its advantages are best seen in malignant disorders of the alimentary canal. Iron, arsenic, quinine, tonics in general are useless, except as *placebos*.—*American Journal of the Medical Sciences*.

MALPRACTICE AS DEFINED BY LAW.

Delivered before the Society of Medical Jurisprudence at the Academy of Medicine, November 13, 1893; by Hon. David McAdam, Judge of the New York Superior Court.

The following extracts are taken from the official report of the address on "Malpractice with Reference to the Legal and Medical Professions." They present an interesting definition of the relations of the professions of the Law and Medicine, and of the responsibility which both bear to the public :

IMPLIED OBLIGATIONS OF THE PROFESSIONS.

The obligation of the two professions is the same. Physicians, surgeons, dentists, druggists and lawyers, by holding themselves out to the world as such, impliedly contract that they possess the reasonable and ordinary qualifications of their profession, and are consequently under a duty to exercise reasonable and ordinary care, skill and diligence toward those who employ them. The world has not time to inquire into the proficiency of every professional man; hence, it presumes him to be furnished with that amount of skill which he is under obligation, by virtue of his calling, to possess. It may, and does, vary widely among men, but it must at least be sufficient to entitle him to a recognized

place among his own fraternity. If, therefore, by illegally assuming a title, or assuming one he is incompetent to fill, he holds himself out as a practitioner of any science, when he does not possess the required qualifications, and induces the public to employ him, he is a wrong-doer *ab initio*, and any person injured by his performances has an action against him.

The courts have ruled that no attorney can be held to infallibility of judgment or to a warranty of the result of his efforts. Attorneys do not profess to know all the law or to be incapable of error or mistakes in applying it to the facts of every case, as even the most skilful of the profession. What he is responsible for is ordinary skill, diligence and care, having reference to the nature of the business he undertakes to do, and for any failure to exercise these, an action may be maintained by his client against him.

MALPRACTICE DEFINED.

Malpractice is bad or unskilled practice in a physician or other professional person whereby injury is caused. Black-

stone says concerning in : "For it hath been solemnly resolved that Malpraxis is a great misdemeanor and offence at common law, whether it be for curiosity and experiment or by neglect, because it breaks the trust which the party had placed in his physician, and tends to the patient's destruction."—(3 Black. Com. 122.)

Malpractice may be divided into three parts: 1. Wilful. 2. Negligent. 3. Ignorant.

Wilful takes place when the physician purposely administers medicines or performs an operation which he knows and expects will result in damage or death to the individual under his care.

Negligent malpractice comprehends those cases where there is no criminal or dishonest object, and includes gross negligence of that attention which the situation of the patient requires.

Ignorant malpractice is the administration of treatment calculated to do injury, and which does harm, and that which a scientific medical man would know is not proper.

Malpractice can only be affirmed where the physician has set aside established principles and neglected to employ means which are universally held to be necessary in the given case. If medical men fail to discharge their duty in a skilful and attentive manner, the law will grant redress to the party injured by their neglect or ignorance, in the form of an action on the case, as for a tortious misconduct, and no fees can be recovered.

TESTS OF RESPONSIBILITY.

From the leading cases the following propositions may be extracted :

1. If the defendant acted honestly and used his best skill to cure, and it does not appear that he thrust himself in the place of a competent person, it

makes no difference whether he was at the time a regular physician or surgeon or not.

2. To constitute guilt, gross ignorance or negligence must be proved.

3. A defendant who, with competent knowledge, makes a mistake in a remedy, is not answerable; but it is otherwise when a violent remedy, shown to have occasioned death, is administered by a person grossly ignorant, but with average capacity, in which case malice is presumed.

4. Where competent medical aid can be had the application of violent remedies by an ignorant person, though with the best of motives, involves him in criminal responsibility.

5. Express malice, or an intent to commit a personal or social wrong, always makes the practitioner criminally responsible. As phisic and salves were in use before physicians and surgeons, the common law provided that if a party employ a person as a surgeon, knowing him not to be one, he had no civil remedy; yet, if a person of no medical education, in a case where professional aid might be obtained, undertakes to administer medicine which may have a dangerous effect, and thereby occasions death, such person is guilty of manslaughter.

Many of these matters are now regulated by statutes, which prescribe the rights and liabilities of medical men, and those who assume to practice as such without the necessary credentials. These provisions in the different States are, of course, controlling. In an action against a physician for malpractice the question is not whether he is skilled in his profession, but whether he treated this particular case properly. The question of skill in his profession is material, but not controlling, the main contention being whether he treated the case in

hand according to scientific principles.

The physician has no exclusive privilege of absolution from wrong-doing. He derives none from his profession, and becomes responsible, therefore, for any damages to the health or for any disfigurement of the person of a patient, which are directly traceable to his want of skill or diligence.

WHAT CONSTITUTES SKILL AND DILIGENCE BY MEDICAL MEN.

The reasonable and ordinary care, skill and diligence which the law requires of physicians and surgeons is such as physicians and surgeons, in the same general neighborhood, in the same general line of practice, ordinarily have and exercise in like cases. In a Pennsylvania case a surgeon was sued for alleged malpractice in the setting and treatment of a broken limb. The court charged the jury "that the defendant was bound to bring to his aid the skill necessary for a surgeon to set the leg so as to make it straight and of equal length with the other when healed; and if he did not, he was accountable in damages, just as a stonemason or bricklayer would be in building a wall of poor materials, and the wall fell down; or if they built a chimney and it would smoke by reason of want of skill in its construction. They could not only recover for building, but would be accountable for damages." This ruling was reversed on appeal, and the Appellate Court laid down this rule:

"The implied contract of a physician and surgeon is not to cure—to restore a limb to its natural perfectness—but to treat the case with diligence and skill. The fracture may be so complicated that no skill vouchsafed to man can restore original straightness and length; or the patient may, by wilful

disregard of the surgeon's direction, impair the effect of the best conceived measures. He deals not with insensate matter, like the stonemason or bricklayer, who can choose their materials and adjust them according to mathematical lines; but he has a suffering human being to treat, a nervous system to tranquilize and a will to regulate and control."

The true measure of skill required is that ordinarily exercised in the profession by the members thereof as a body, that is, the average of the reasonable and diligence ordinarily exercised by the profession as a whole, not that exercised by the thoroughly educated nor well educated.

The medical man must not only possess the required skill, but must exercise it in the case at hand, and in the manner best calculated to bring about beneficial results.

DIFFERENT SCHOOLS OF MEDICINE.

The law does not favor any particular school of medicine, and the treatment of a physician is to be tested by the principles of that school to which he belongs.

Homeopathy and allopathy now stand on the same footing before the law.

To constitute a school of medicine under this rule, it must have established rules of practice for the guidance of all its members, as respects principles, diagnoses and remedies, which each member is supposed to observe in any given case. If the practitioner proceeds without such a system of fixed principles or formulated rules, he does not belong to "a school of medicine," and he is held to the duty of treating his patient with the ordinary skill and knowledge of physicians in good standing who practice in his vicinity.

SKILL REQUIRED OF EMPIRICS.

One not a regular physician, but holding himself out as capable of treating particular maladies, is bound to exercise the skill and care of the general physician in the treatment of such maladies. This upon the ground that the law makes no allowance for quackery; it demands qualifications in the profession, and will require empirics to make their professions of skill and ability good, or answer for the consequences. The same rule has been applied to clairvoyants. For unskilful treatment the attendant is liable.

As Lord Ellenborough said: "The farrier who undertakes to cure my horse must have common skill, at least, in his business, and that is implied in his undertaking. . . . A surgeon would be liable for ignorance, and justly responsible in damages, for having adventured upon the exercise of a profession without the ordinary qualifications of skill, to the injury of a patient."

It is sufficient to sustain a verdict that the party held himself out as a physician. Issuing circulars signed with his name having "Dr." prefixed is enough.

LIABILITY OF VOLUNTEERS.

A person who, without special qualifications, volunteers to attend the sick, can, at most, be only required to exercise the skill and diligence usually bestowed by persons of like qualifications under like circumstances. Thus (to put a case borrowed from Mohammedan law): "If a person will knowingly employ a common mat-maker to weave or embroider a fine carpet, he may impute the bad workmanship to his own folly." In other words, a patient is generally entitled to receive that which you lead him to believe he may expect.

EFFECT OF LOCALITY UPON STANDARD OF SKILL.

As the law discriminates between the metropolitan and rural bar, so it distinguishes between the city and country physician, by providing that the locality in which a physician or surgeon practices is to be taken into account. One practicing in a small town or sparsely settled country district is not to be expected to exercise the care and skill of one residing in, and having the opportunities afforded by, a large city. He is bound to exercise the average degree of skill possessed by the profession in such localities generally.

The term "rural practitioner" here used refers to those who practice in small towns away from the facilities of the "metropolitan practitioner," and not to those in populous places near the cities where the opportunities of the different practitioners are equal. Negligence is the absence of care, according to the circumstances; and the law, exacting as it is in many instances, does not require impossibilities nor hold people to implied responsibilities which, in the nature of things, they never intended to assume. The implied obligation in this regard may be said to be that which both parties must have understood but did not deem necessary to express.

STATUS OF SPECIALISTS.

A professional man who devotes himself to a particular branch of his calling, legal, medical or surgical, and holds himself out as a specialist therein, impliedly undertakes that he possesses superior knowledge and ability in respect thereto, as well as its technics, and the degree of skill demanded of him must, in the nature of things, conform to the grandeur of his representations, express or implied.

An oculist may be held liable for failure to exercise as high a degree of skill as other surgeons of that specialty exercise when he holds himself out as possessing such skill.

NO IMPLIED WARRANTY TO CURE.

We have found that the lawyer neither guarantees the success of his proceedings in a suit nor the soundness of his opinions. The same rule applies to the medical man.

There is no implied warranty on his part that he will effect a cure. Failure of a surgeon to accomplish the desired result does not of itself render him liable for malpractice; the test is whether he has exercised reasonable skill and attention in his treatment. His obligation, like that of the lawyer, is merely to bring to the case in hand the average skill of the profession in the vicinity, with the care commensurate to its importance and the consequences likely to follow.

ERRORS OF JUDGMENT.

Medical men, like lawyers, are not liable for mere errors of judgment, unless it be so gross as to be inconsistent, with reasonable care, skill and diligence.

Thus, in *Fisher vs. Nicholls* (2 Ill. App., 484), the appellant asked the court to instruct the jury "that if they believe the defendants used ordinary skill and care in the treatment of the plaintiff's hand, and made a mistake in judgment, then the defendants are not liable for the result of such mistake under the law." This instruction the court refused to give as asked, but gave it with the following modification: "Provided the defendants, in making up their judgment, did not disregard the well settled rules and principles of medical science." This request, as modified, conforms to the rule already laid down concerning the

skill to be bestowed by the medical man to his patient.

The burden of proof is upon the plaintiff in all actions for malpractice to show that there was a want of due care, skill and diligence, and that the injury was the direct result of such want of care, skill and diligence.

The mere failure to effect a cure raises no presumption of a want of care or skill.

A physician and surgeon engages to bring to the treatment of his patient care, skill and knowledge, and while, when exercising these, he is not responsible for mere errors in judgment, he is chargeable with knowledge of the probable consequence of an injury, or of neglect in his treatment or unskilful treatment.

ERRORS IN DIAGNOSIS.

An error in diagnosis is sure to be followed by improper treatment, and is, therefore, of importance.

The courts have held that the right of a physician to be compensated for his services depends upon the diligent exercise under his employment of the skill which commonly pertains to his profession; that the rule applies as well to the ascertainment of the patient's disease as to its treatment, and the fact that the physician erred as to the disease and treated the patient for one he did not have, will not defeat the physician of compensation.

A surgeon possessed of the requisite knowledge is not responsible for errors of judgment or mistakes in a case in which there are reasonable grounds of doubt and difference of opinion, but is chargeable only with error arising from want or failure to exercise reasonable skill and diligence.

In *Gedney vs. Kingsley* (41 St. R., 794 s. c., 16 Suppl., 792), it appeared

that the plaintiff injured her arm, and defendant (a surgeon) examined it, but discovered nothing more serious than a bad bruise. In fact, the arm was fractured, and by reason of the delay in discovering the fracture the injury became irreparable. In an action for damages the defendant's evidence tended to show that the arm was so swollen that a complete examination could not be made, and that plaintiff told him not to call again until she sent for him. Held, that if this were found to be true, no recovery could be had.

CONSENT TO SURGICAL OPERATIONS.

If physicians attending a woman deem it necessary, for the preservation and prolongation of her life, to perform an operation, they are justified in doing so if she consents, whether her husband consents or not. As a rule, anything warranted by good practice and not objected to by the patient is authorized. This is evidenced by the numerous operations constantly performed in efforts to save or prolong life, some of which result disastrously, and yet no one would impute either malpractice or manslaughter. These are more than offset by the numerous, and sometimes marvellous, results of a beneficial character brought about by similar operations upon others.

GRATUITOUS SERVICES.

The mere fact that a physician or surgeon renders services gratuitously does not affect his duty to exercise reasonable and ordinary care, skill and diligence.

Treating a patient gratuitously gives no license to experiment on him or to do any negligent act toward him. He puts himself in professional hands, and has the right to expect medical treatment according to the ability of the

physician or surgeon in charge. "It is the duty of every artificer to exercise his art rightly and truly as he ought." This is peculiarly the duty of professional practitioners, to whom the highest interests of man are often necessarily intrusted. The law has no allowance for quackery. It demands qualification in the profession practised, not extraordinary skill, such as belongs only to a few men of rare genius and endowments, but that degree which ordinarily characterizes the profession.

A physician employed by a city to treat patients in an almshouse will not be relieved from liability to a patient therein for failure to exercise ordinary care and skill, although he is paid by the city and not by the patient.

CONSULTATION WITH OTHERS.

If a physician or surgeon is not competent, or feels that he is not competent, to treat a case properly, it is his duty to recommend the employment of another; but if he is competent and so considers himself, and is in doubt concerning the case, he should use his best judgment as to consultation with other physicians or surgeons. He cannot bring in consulting physicians or surgeons without the consent of the patient, so as to obligate him to pay their fees, unless, perhaps, in a very extreme case, where dire necessity furnishes the authority.

ADOPTION OF LATEST METHODS AND APPLIANCES.

Physicians and surgeons should keep up with the latest advance in medical science, and use the latest and most improved methods and appliances, having regard to the general practice of the profession in the locality where they practice, and it is a question for the jury to decide from all the circumstances of the case whether the physi-

cian or surgeon has fulfilled his duty in that respect.

If they depart from generally approved methods of practice, and the patient suffers an injury thereby, the medical practitioner will be held liable, no matter how honest his intentions or expectations were of benefit to the patient.

The failure to use the most improved methods is not conclusive evidence of negligence, if those used were reasonably safe, and such as were employed by other reputable practitioners in the neighborhood, no liability is incurred. Yet it is advisable for all to recognize the progress of science and to keep abreast of it to avoid charges which are easily made and are lasting in their effects, though unwarrantable by the facts.

PARTNERSHIP LIABILITY.

All the partners are liable for malpractice by any member of the firm. The ground of liability is, the contractual relation, for the gist of the action is its breach either by malfeasance or misfeasance.

It will not do for an eminent practitioner to associate himself in business with a "quack," and, after holding him out as a competent practitioner, impose upon the public, and then be allowed to avoid the responsibility. Many people might be induced to receive treatment from the partner of a well-known practitioner who would never have thought of employing him but for the partnership relation and the holding out of the individual as one worthy of such association. While malpractice is a tortious act, the true source of liability is the contractual relation, which is with the firm, and it must answer for its breach. In other words, it must take the burdens with the benefits.

This doctrine of privity of contract

does not confine the remedy to the employer; for if a surgeon treat a child unskilfully he will be liable to the child, even though the parent contracted with the surgeon.

CONTRIBUTORY NEGLIGENCE OF PATIENT.

If the patient in any way contributes to the injury by his fault or neglect, he cannot recover for malpractice by the physician or surgeon.

If the patient, by refusing to adopt the remedies or comply with the directions of the physicians, frustrates or defeats the endeavors of the physician, or if he aggravates the case by his misconduct, he cannot charge to the physician the consequences due directly to himself.

When a liability for malpractice is established, proof that the patient, after the liability was incurred, disobeyed the orders of the physician, and so aggravated the injury, does not discharge the liability, it simply goes in mitigation of damages.

DOCTORS MUST KEEP SOBER.

There is no law except that of propriety which requires a lawyer to remain sober; but an express statute enjoins this upon the medical fraternity in these words: "A physician or surgeon, or person practicing as such, who, being in a state of intoxication, administers any poison, drug or medicine, or does any other act, as a physician or surgeon, to another person by which the life of the latter is endangered or his health seriously affected, is guilty of a misdemeanor." Another section provides: "A physician or surgeon, or person practicing as such, who, being in a state of intoxication, without a design to effect death, administers a poisonous drug or medicine, or does any other act, as a physician or surgeon, to another person

which produces the death of the latter, is guilty of manslaughter in the second degree." Medical men who decline to drink on account of these admonitions may be looked upon, therefore, as methods of "statutory sobriety."

DOCTORS SHOULD BE LAWYERS, AND VICE
VERSA.

Blackstone, in his "Commentaries," says: "The science of medical jurisprudence has of late years attained to especial prominence and importance; inasmuch, also, as the evidence of skilled witnesses is justly deemed entitled of much weight, some general acquaintance with legal principles and the nature of criminal offences is suggested for those professing the faculty of physic as desirable and useful." Apropos to this let us add the suggestion that, inasmuch as there are many cases of contested wills in which the testamentary capacity of the testator is called in question, and many cases of especial prominence and importance wherein the mental condition of the principal party is directly in issue, some general acquaintance with the medical science, and the nature, cause and effects of such things, is suggested for those professing the profession of the law as not only desirable and useful, but necessary to the proper presentation and protection of the rights of their client and the proper cross-examination of the medical experts. The one would seem to follow the other as the night the day.

QUACKS AND SHYSTERS.

To call a person lawfully practising as a physician a "quack" is in effect charging him with a want of the necessary knowledge and training to practice the system of medicine he undertakes to bestow. In other words, a "quack" is an ignorant pretender to knowledge

he does not possess. The term "shyster" has practically the same meaning in the legal profession. Thus, in *Wakley vs. Healy*, 7 C. B., 591, it was held that publishing in writing of a barrister that he was "a quack lawyer and impostor" is actionable.

The word "shyster"—defined by Webster to mean a trickish knave, one who carries on any business, especially a legal business, in a dishonest way—is evidently capable of having reference to the professional character and standing of a lawyer.

In an action of libel it was said that the designation "pettifogging shyster" must mean an unscrupulous practitioner who disgraces his profession by doing mean work, and resorts to sharp practice to do it.

It would be a good thing for the public, as well as for the two learned professions, if the ignorant pretenders referred to were obliged to designate themselves "quack doctors" and "shyster lawyers" upon their signs and cards. The government, during the war, stamped upon every bogus greenback it came across the word "counterfeit." These cabalistic marks prevented imposition.

The suggestion made, if carried out, would save the good name of the legal and medical professions from much of the abuse they now receive.

LEGAL POSITION OF DENTISTS.

The teeth and the gums of the mouth are important parts of the human body. The pulling of teeth is an art or profession akin to surgery. Indeed, those engaged in it are known as "surgeon dentists," and the same degree of skill is exacted of them as of the other professional men, and, substantially, the same rules govern their operations.

In *Keily vs. Colton*, the defendant, who was a dentist, undertook to extract

a tooth while the patient was under the influence of an anæsthetic called "laughing gas." In extracting the tooth the forceps slipped and part of the tooth went down the plaintiff's throat, causing coughing and vomiting, which continued at intervals for about four weeks, at the end of which time, during one of these attacks of coughing, the tooth was thrown up and relief followed. Held, that while the patient was under the influence of an anæsthetic, which deprived him of the use of his faculties, the defendant was required to use the highest professional skill and diligence to avoid probable dangers, and that the circumstances presented were sufficient to warrant the finding by the jury of negligence.

LIABILITY OF DRUGGISTS.

The rule of liability of a druggist who delivers a deleterious drug to one who calls for a harmless one, is the same as that which governs the liability of professional persons whose work requires special knowledge and skill, and a person is not legally responsible for any unintentional consequential injury resulting from a lawful act when the failure to exercise due and proper care cannot be imputed to him.

An action against a druggist for an error of his clerk in compounding a prescription rests upon negligence, and a right of recovery does not arise from the mere fact that a drug given was not included in such a prescription, as the defendant is entitled to have the question of the competency of his clerk and the exercise of due and proper care on his part submitted to the jury.

In such case, when the defendant assumes to fill the prescription, undertakes that he possesses the ordinary skill of a druggist or apothecary, and that he will exercise due and proper care in putting up the medicine required, the

degree of care being proportionate to the gravity of the injury that would necessarily result from a want of care, the failure to exercise due and proper care is the only ground upon which a recovery can be had in such action.

One who is ignorant of the properties of a poisonous drug is liable to a criminal prosecution for a negligent sale or use thereof.

A druggist who grinds medicines in a mortar which has been used to grind poisons without properly cleansing it, is liable to one injured by means of such careless use. So of a druggist on ship-board who neglects cleansing drinking utensils after using them with poisonous substances. So of a druggist who sells morphine instead of quinine, which causes death.

A druggist who sells a deadly poison as a harmless medicine is liable, and one who labels a deadly poison as a harmless drug is liable for all consequences.

LIABILITY OF CORPORATE INSTITUTIONS.

While the attending physician may be liable for malpractice, it does not follow that counties are in reference to poor-houses, nor hospital corporations or proprietors in reference to their institutions. Thus, in *Harris vs. Woman's Hospital* (27 Abb. N. C., 37; s. c., 39, St. R., 98; 14 Suppt., 881), it was held that a public charitable hospital is not liable for injuries sustained by an inmate from the actual negligence of a medical attendant, if it is shown that the institution exercised due care in the selection.

REQUIREMENTS OF EVIDENCE.

Whether a physician has in a given case adopted the proper treatment is a question on which the opinions of medical men of the same school may be received in evidence, and they may state whether, in their opinion, the treatment

was proper or not. In other words, whether it was in conformity to the practice of the profession.

A defendant may state what, from his study and experience, he deems proper treatment of the case in question, but not what success he had in other cases. The chief reliance in malpractice cases must be medical testimony, which, in the nature of things, comes from other members of the profession, and is of the character known as the testimony of experts, and consists of opinions founded on facts, observations and the like.

An expert cannot be required to pass upon or draw inferences from the evidence given by another witness.

An expert may be qualified by study without practice, or by practice without study. But mere observation without either is insufficient. Expert evidence, though useful as a guide, depends upon its value as found by the court or jury, and is never conclusive, as the court or jury may apply their own experience and good judgment to the subject.—*R. I. Medical Science Monthly*.

MEAT PRESERVATIVES.—Venzke and Schorer (*Deutsche Fleischerzeitung*, 1893, Nos. 20, 21 and 24) have made analyses of 38 preservatives for meat, and report their ingredients to be as follows: One proved to consist of salt, sugar and nitrate of potassium; four of salt, sulphite and sulphate of sodium; four of sulphite and sulphate of sodium; one of salt, sugar, sulphite and sulphate of sodium; one of salt, bicarbonate and nitrate of sodium; three of salt, boric acid, nitrate of potassium and sulphate of sodium; one of salt, boric acid and sulphate of sodium; one of salt, boric acid, gypsum and sulphate of sodium; six of salt and boric acid; one of salt, nitrate of potassium, sulphates of sodium and calcium,

and cochineal; one of salt and borax; two of salt, borax and nitrate of potassium; two of salt, borax and nitrate of sodium; one of salt, borax, sulphates of sodium and calcium and salicylic acid; one of borax alone; five of calcium sulphite; one of molasses sugar; and two of borax and sugar.

E. Polenske (*Arbeiten aus dem Kaiserlichen Gesundheitsamte*, Band viii. p. 686) gives his results of further analyses of meat preservatives, seven in number; one consisted of salt, sulphate and sulphite of sodium, chloride of iron and vanillin; one was wholly acid sulphite of sodium; another was a mixture of sulphite and sulphate of sodium; a fourth consisted of salt, borax and nitrate of potassium. A preservative obtained from American hams consisted chiefly of borax with small amounts of salt and nitrate of potassium. "Powdered albumen," for sausages, consisted of albumen, non nitrogenous organic matter, water, salt and other mineral matter. "Chromosot" was found to contain 90 p. c. of sulphate and sulphite of sodium, with albumen, coloring matter, etc.—*Am. Jour. Med. Sci.*

NEW METHOD OF TREATING PERITONEAL TUBERCULOSIS.—Nolen (*Berliner klin. Wochenschrift*, 1893, No. 24) being convinced that the favorable results observed after cœliotomy are due to the simple contact of air with the peritoneum, has conceived the idea of introducing air into the abdominal cavity through a needle. He reports 3 cases, 2 of which were successful. In these, repeated tapplings had been employed, but the ascitic fluid always reaccumulated, until air was pumped in by means of an apparatus devised by the writer. A third successful case is reported by Mosetig-Moorhof.—*American Journal of the Medical Sciences*.

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ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

SOME NEEDED LEGISLATION.

While the laws of our State are now quite good, so far as the person who would pose as a physician is concerned, there are other things in regard to which we are not abreast of the more progressive States, and which should be controlled by strict laws, if the health and lives of the public are to be protected.

The ignorant, depraved and filthy women who style themselves as mid-wives in North Carolina, are a disgrace and a shame to nineteenth century civilization. The fate of the parturient woman in heathen India, who is shut up by herself until she has passed through the throes of labor, is no worse, and in many cases better, than the unfortunate one who falls into the hands of some of these creatures. That there should be

mid-wives, who are capable of conducting women through "the perils of childbirth," we suppose is a necessity now, and will be for long years to come, but that this duty should be entrusted to any old ignorant negro, who takes a notion to be a "granny," is supremely wrong.

This class, who deal with the lives of two beings at once, should be controlled by the strictest laws. They should be required to have their names and residences registered with the county clerk, and he should be allowed to register them only when they present a certificate from some qualified person—the county superintendent of health, for instance—showing they possess a reasonable degree of knowledge in the management of cases of labor, including asepsis, diagnosis of presentations, placenta previa, causes for unusual delay in delivery, and proper care of mother and child after labor. They should be

required to summon the aid of a registered physician as soon as any abnormal condition is detected—in other words, they should be permitted to conduct to their close only normal cases of labor. They should not be permitted to administer drugs to their patients, and especially ergot, unless all the contents of the uterus have come away. We notice in one of the Northern States (New York, we think), in an act regulating the practice of mid-wifery, mid-wives are prohibited from giving drugs *except ergot*. This is probably the most dangerous drug that could have been left in their hands.

There should also be enacted laws looking to the prevention of blindness from ophthalmia neonatorum. Other States have laws on this subject and they prove very beneficial. Every mid-wife should be required to report to some registered physician, or some county or municipal authority who would notify a physician, every case of inflammation of the eyes in infants during the first seven days at least. This should also apply to the parents, where no mid-wife is in attendance. It is only among the poor that these cases are apt to be neglected, and cases of blindness in this class prove a life-long burden to the community. We are not convinced of the wisdom of a law that would require the carrying out of the efficient prophylactic procedure of instilling into the eyes immediately after birth a solution of silver nitrate or a solution of boric acid. It would be unwise to permit our ignorant mid-wives even this much freedom in the use of drugs, certainly in regard to the former, and all physicians should know by this time the importance of the measure,

and not need an act of legislature to cause them to use it.

The sale of poisons is another and very important subject that should receive attention. Cases of death from the careless, ignorant or improper sale of poisons are of frequent occurrence. Any one can buy almost any drug a druggist has in his shop, and not long since we read of a death from strychnia sold in mistake for quinine from a *country general merchandise store*. Within twelve months after the writer began practising medicine in Wilmington he was called to treat no less than four cases of poisoning from laudanum. We know of a case where a lady purchased from a drug store, to kill cats, 15 or 20 grains, or more, of strychnia sulphate—enough to kill nearly every person on the block. She was honest in telling the use she intended making of it, but the druggist should not have sold it to her. Poisonous drugs should be sold only by druggists (we include with these physicians who dispense their own medicine), and only upon the prescription of a physician, and they should be kept in such containers as to be instantly recognizable by sight or touch.

No grocers should be allowed to sell poisons, and, that the law may be fully enforced, all patent medicines should have their formulæ, in plain, easily distinguished characters, placed upon the label, and any remedy not agreeing with the formula as shown by analysis by the State chemist, should subject the proprietors to heavy fines. A manifold benefit would result from a law of this kind.

We hope that the Legislative Commit-

tee of the Society will consider these and other things, the regulation of which would work infinite good to the community. We have jotted down these matters that call for legislation only as suggestions for the Committee to work upon, and feel assured that they will have many things to lay before the Society.

AT LAST !

In a twenty-six page pamphlet, Dr. Thornton, of Boston, presents some wonderful and vital information. Hear him :

"I hasten to you as custodians of the public health to make known a discovery. I am now prepared to say to you, gentlemen, that the fell monster, that has slain his thousands of our noble race, has himself been slain, and this paper will lay before you the plan of the campaign that has ended in such a victory, and will explain to you how this fell enemy was routed and driven from that territory on which he can never appear again."

He has discovered by mathematical reasoning that there is only one kind of matter in nature, that all this talk about elements is bosh. The physical differences of substances depend on the relative position of the atoms composing them. He also concludes there is no such thing in nature as living matter; and upon this fact rests the discovery of the cause and cure of malignancy. He then goes on to explain how this one kind of matter is amorphous, and that the entrance into it of the polar forces makes it crystallizable—that the prevention of these forces from remaining in it "is the cause of animation and reproduction, making viscosity and flexibility within given limitations absolutely necessary for animation to ap-

pear." Every so-called living thing requires a nucleus before it can appear. What is that nucleus? He says :

"By the aid of the spectroscope and other means I have found that sulphur and phosphorus are compounds and not elements, as supposed by chemists, and that phosphorus is produced from a differentiation of sulphur by the potentialities of chlorine and hydrogen, its consistency being derived from electrical fixity. After it is once formed it becomes a nucleus in the formation of protoplasm, and is afterwards the point or nucleus which permits the action of the electrical potentiality of nitrogen, drawing the polarities of the earth through it, in conducting the physical and chemical changes for the production of seeds, plants, vegetables and animals."

He has discovered what the force is that gives animation to the nucleus. It is nitrogen. Nitrogen is the originator of locomotion, for without it there is and can be no locomotion. Then he goes into the factors that produce malignancy.

"We may liken the whole human body to a colonization of fungi, which is normal when its physiological functionality goes on uninterruptedly, each fungus or cell changing its environment into itself and the products of its excreta. On this ground the whole body of man lives by the joint ferments of his own structure, each one in the form of a cell contributing its function after colonization thus sustaining the edifice, any revolt in the colonies, by their refusal to contribute their part to normal functionality, producing disease. The greatest revolt of the units produces malignancy. . . . When the viscosity and flexibility of the colloid keeps within the limitation of functionality, we have normal consistency of the different organs or parts of the body. An

increase of the consistency of any tissue beyond this limitation produces induration or hardening. In carcinoma of a schirrus type we have the crystalline matter of the tissues encroaching upon colloid movement, by crowding the animal matter of the colloid, something like the way in which vacuolation and substitution takes place in cells, during degenerations in different parts of the body."

Knowing all this, is it any wonder he has a treatment which will cure this "appropria medicorum" by taking a dose of the first formula after the first and last meals, and a dose of the second formula after the middle meal for twenty-eight days, then a dose of a third formula three times a day for six or eight months, and that he keeps his formulæ secret? Or is it any wonder that he fails to report any cases cured, but that he explains the number of deaths that have occurred while under his treatment, by stating they were too far advanced, having held him as a last resort, after surgeons of distinction had operated on them?

MEDICAL SOCIETY MEETING.

May 15th, the date of the next meeting of the Medical Society of the State of North Carolina, is only one month off. All those who have papers to present at this meeting should have sent their titles to the Secretary by this time. Have you done so? If not, please send it immediately, that the Secretary may arrange a program that will be of some service in facilitating the work of the Society.

With the growth of the Society and the increased number of papers presented, not one minute of the limited time of the meeting can afford to be wasted. Members should be on hand

promptly at the time set for opening each session. We have heard nearly the whole program for a session read through by the President without a response because the members to whom the time had been allotted thought it no matter if they were an hour late. Such delays disarrange the program and cause much time to be wasted. Be on hand, especially if you have a paper to read.

Among the important things to be done at the coming meeting is the selection of two members to serve on the Board of Medical Examiners for six years. In selecting men to this all-important trust the Society should choose those who, from their experience and ability, will reflect credit upon the Society, and guard with a jealous and watchful eye the welfare of the people and the honor of the profession. For the benefit of those who seek, between the regular meetings of the Board, a temporary license, the members should be so distributed in regard to territory and accessibility by railroad that two may be reached by an applicant from any portion of the State with as little expense of time and money as possible. Elect no one to this responsible office for the purpose of honoring him, but because of his fitness to perform the duties that come with the honor.

NORTH CAROLINA A FEEDER OF NORTHERN SPECIALISTS AND HOSPITALS.

We publish in another department of this issue a communication from Dr. H. O. Hyatt, of Kinston, in which he discusses the causes which lead to sending by home surgeons of such a large number of patients to the North for treatment.

While the Doctor is somewhat severe in some of his statements and overlooks some things which prompt this action, there is very much truth in what he says, and the matter is one which should receive the serious attention of individual physicians and of the Society as a body. There can be no doubt that the custom is growing more common each year, notwithstanding the fact that our home surgeons are demonstrating more satisfactorily each year their ability to handle these cases. If only those patients were drawn away from the State that go under the direction of their physician, the case would not be so bad, but the fact of one going sets the ball in motion, with the result that many go who could be treated just as well at home.

We will mention one or two reasons for this exportation of cases, both medical and surgical, that Dr. Hyatt has not noted. No one will deny that there are certain cases in which it is almost a necessity to get the patient away from home influences, and which can be treated with much greater hope of success where perfect hospital facilities and nurses thoroughly trained in special lines may be had. Then, again, the result of an operation upon a prominent person is of far more importance to the home surgeon, who has a reputation to make, than to the eminent specialist. If the patient dies under the former's hands, it is due to lack of skill, if under the latter's, it is due to the grievous disease. Some seem to consider it almost as great an honor to die under the knife of some eminent surgeon as does the heathen pilgrim to succumb to cholera while on his weary march to Mecca.

When the home physician undertakes

an operation upon a prominent person, his reputation and his living are at stake. A failure would do him incalculable injury, while success would excite but little comment. It could not have been much of an operation if he could do it. Is it any wonder, then, that the home surgeon hesitates to dissuade one who has shown an inclination to go to the North to have an operation done? One cannot foresee with certainty the result of any operation. This may be the one in which the unexpected will happen. A dozen successes on patients in the lower walks of life will not counteract one failure in high life. But something must and will be done to stay this ever increasing flow of patients out from the State—what it will be remains to be seen. We must not, we cannot, sit with eyes wide open and see the pushing, enterprising, but certainly not more capable, men of other States plucking the choicest plums from our own trees, and throwing us the stones to suck, without a determined effort to stop it.

NEW JOURNALS.

The *Louisville Medical Monthly* makes its first appearance with the March number. It is under the editorship of James B. Steadmen, M.D., and George M. Warner, M.D. It is a double-column journal, published monthly at \$1.00 a year, and this issue presents a full and attractive table of contents.

The *New York State Medical Reporter* also begins its existence with the March issue, being a monthly journal, published at Rochester, N. Y., and edited by H. Bronson Gee, M.D. It is printed on enameled paper in double-column, and gives promise of occupying a conspicuous place among monthly journals.

Reviews and Book Notices.

A Text-Book of the Theory and Practice of Medicine. By American Teachers. Edited by William Pepper, M.D., LL.D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. In two volumes. Illustrated. Vol. II. Mr. W. B. Saunders, Philadelphia, 1894.

This volume has been detained in its appearance by circumstances that could not be overcome, and the publisher has sent with each copy to subscribers a letter of apology. One of the chief reasons for this delay, and it is also one of the items which makes the work so excellent and so valuable, is the great quantity of matter furnished by Dr. Pepper himself, some 325 of the 1,100 pages in this volume being from his pen, while he contributed no less than 200 of the first volume.

The favorable notice contained in the *JOURNAL*, nearly a year since, of the first volume, can be also applied to this one.

The authors who have contributed to this volume are Dr. Henry M. Lyman, Dr. William Osler, Dr. James C. Wilson, Dr. Francis Delafield, Dr. James W. Holland, Dr. Reginald H. Fitz, Dr. Wm. H. Welch and Dr. Wm. Pepper. Seldom is such an array of eminent authorities presented in one volume, and is alone sufficient to popularize the work.

The volume opens with an article on Bacteriology, Infection and Immunity, by Dr. Welch. He has treated his subject with much thoroughness, considering the vast field over which his work lay and the limited space at his command—70 pages.

Diathetic diseases are under the authorship of Dr. Lyman, and Dr. Pepper

is in charge of the sections devoted to diseases of the blood and blood-vessels and of the alimentary canal. These subjects are ably treated and contain the latest data.

Illustrations, including full-page plates, are scattered through the text, and are of good quality.

The National Dispensatory. Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, Including those Recognized in the Pharmacopœias of the United States, Great Britain and Germany, with Numerous References to the French Codex. By Alfred Stillé, M.D., LL.D., Professor Emeritus of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania; John M. Maisch, Ph.M., Phar.D., Late Professor of Materia Medica and Botany in Philadelphia College of Pharmacy, Secretary to the American Pharmaceutical Association; Charles Caspari, F.R., Ph.G., Professor of Pharmacy in the Maryland College of Pharmacy, Baltimore, and Henry C. C. Maisch, Ph.G., Ph.D. New (fifth) edition, thoroughly revised, according to the new United States Pharmacopœia (7th Decennial Revision, 1894). In one magnificent imperial octavo volume of 1910 pages, with 320 elaborate engravings. Cloth, \$7.25; leather, \$8.00. With Ready Reference Thumb-letter Index, cloth, \$7.75; leather, \$8.50.

The appearance of this new edition of this great work will be welcomed by both physicians and pharmacists. Following so soon (only one month) after the new pharmacopœia went into effect, it will soon take the place of the old editions. The sweeping changes made in the Pharmacopœia by the Committee on Revision have been thoroughly incorporated, as also the many new syn-

thetic remedies and the unofficial preparations now so much in use. It is a volume which should be in the hands of every doctor and druggist in the land. The eminent men whose names appear as editors are a guarantee that the work is brought fully up to date and is accurate. Weights and measures are expressed in both the ordinary and the metric system. Not only the United States, but the latest editions of foreign pharmacopœias have been searched for all material of value.

The publishers have done their part in excellent style and have provided a convenient thumb index, which is of much value in supplying a means of rapid reference.

The Modern Climatic Treatment of Invalids with Pulmonary Consumption in Southern California. By P. C. Remondino, M.D. Physician's Leisure Library Series. Geo. S. Davis, Detroit, 1893. Price 25 cents.

The author tells the reader of this volume when he should seek a change of climate, how he should reach it, what he should expect from it after he reaches it, and how he should use it to get the

most from it. He tells about the cost of living in Southern California, and about the peculiarities of its climate; but when he says a "Norther" is not accompanied by great bodily discomfort the reader is cautioned to season the statement *cum grano salis*. The climate of the *coast region* of California is charming enough without suggesting that a "Norther" is pleasant.

The Johns Hopkins Reports. Vol. III., Nos. 7, 8 and 9. Report in Gynecology, II. Johns Hopkins Press, Baltimore, 1894.

This is a large, royal octavo volume of 462 pages, containing a description of the Gynecological operating-room with photograph of same, tables of abdominal operations performed in the gynecological department, with a record of deaths. Besides these there are 11 papers on gynecological subjects from the pen of Dr. Howard A. Kelly, and others by Dr. A. L. Stanely, Dr. Hunter Robb, Dr. W. W. Russell and Dr. Mary Sherwood, with an article on Photography Applied to Surgery, by A. S. Murray. The volume is bound in paper, with uncut edges and wide margins, and is freely illustrated.

Correspondence.

THE SITUATION IN NORTH CAROLINA.

Mr. Editor :

The "Report on Surgery," read by Dr. Monroe before the North Carolina Medical Society, at the May meeting in 1893, and published in the NORTH CAROLINA MEDICAL JOURNAL of November, 1893, is calculated to have a beneficial

and inspiring effect upon the profession of the State. There is a natural spirit of emulation among all men of the same calling actuating them to do as well as their fellows. Good work by one stimulates others, and starts the whole body on an onward and upward road.

Dr. Monroe's paper reveals the fact that the country and village surgeons have been doing really good work in

advanced surgery. His report is very meagre and does not contain even the names of many of the best operators in the State, men whom I have seen do as good surgery as can be done anywhere. It may be Dr. Monroe asked these gentlemen for reports and they failed to send in any. If such be the case, Dr. Monroe has done his full duty in the premises. Any doctor who has done creditable surgical work and fails to report the same, has failed in his duty to maintain the honor and credit of North Carolina surgery. It may be that the party doing the work thinks very little of it. There are younger men coming on who need the stimulus of example as well as precept. The very knowledge that one country doctor has done good work stimulates another to try. Inasmuch as it is impossible to be a surgeon without doing surgery, cases ought to be reported to induce others to make the attempt.

There is no reason why village and country doctors cannot do as good surgery as any. It is not essential that one should be operating every day to gain the necessary manual dexterity. A complete command of the muscles of the hand is the prerequisite. This any one can gain by doing the little mechanical work needed about the house and office. A determination to do everything in the best manner possible, even to the tying of ones shoe-strings, will foster the habit of neatness and exactitude. This habit once established, the ability to do first-class surgery is easily attained.

The writer was once coming from Washington City to attend a meeting of our State Society. At a stop in Virginia a rather nice-looking man got on the cars. A party asked, "Doctor, where are you going?" "Oh, I am going to run down to read a little paper before the North Carolina Medical Society."

Everybody in the car looked that way. The thought occurred to me that our Society was doing a rather lame piece of business. The outcome of this little trip will be many patients from our State. He will go down there, read a paper upon some special subject, the local paper will report the fact, and every cross-roads paper in the State will copy it. The people of the State will learn that the distinguished doctor has given the North Carolina profession the benefit of his teaching, and they forthwith go to him when they want advice in his line. The distinguished doctor has done a fine stroke of business. The precious Code has not been violated, but the State Society has helped to make a big man bigger and have belittled themselves in the eyes of their own people.

I do not blame the Doctor—he did perfectly right—he was using honorable means to extend his reputation and increase his practice. If he had let slip such an opportunity to help his brother doctors with his superior wisdom, with a big lot of free advertising thrown in, according to my notion he would simply have played the fool.

The competition for practice in the cities is so very strong that the city doctor has to resort to many schemes to get it. A prominent man in this town who had a surgical disorder received two copies of reprints of articles upon his special disorder from two eminent specialists. He went to the one farthest off. He could have had the work done just as well at home.

In this man's case the patient and doctor both acted foolishly. The patient would occasionally step into the doctor's office and say, "I wish you would do something for this place." The doctor would do something and the patient would go off to return again,

probably, in six months or a year, to have something else done. He never said, "I want you to cure it," or "I want an operation done for my relief." The doctor never took hold of the case with a determination to cure it, as good business would have dictated. He simply temporized. Result—patient at first opportunity goes to a specialist, who cures him by doing a very simple and easy operation and who pockets a cheerfully paid \$50 fee. This patient sends another, who also pays \$50. Where is the blame? The home doctor lost a good fee he could easily have made. The patients who went off and were cured are forever afterwards good drummers for the specialist; and, moreover, they do not have any higher opinion of the North Carolina faculty.

Temporizing with patients is the worst thing a surgeon can possibly do. Yet it is an error that almost all country and village surgeons fall into. As illustrating the writer's guilt in this direction, I will cite the case of a lady who was suffering with ascites and an abdominal tumor, and whom I saw in consultation with her regular physician. Examination by palpation failed to satisfy us as to the diagnosis and an exploratory incision was proposed, but not approved by either attendant or patient.

The case was dropped, and when next heard of she had gone to a neighboring town and a local doctor had taken her to Johns Hopkins Hospital, where she had been successfully operated on for an ovarian tumor.

Soon after this woman returned she induced another to go, who had her tubes removed at the same place. The first woman could have paid a small bill, the second one *could* have paid a good fee, but *did not*.

In another instance a gentleman came to me who had a small epithelial cancer

on one cheek. I was not certain of its malignancy and removed it by a small incision. The wound healed nicely, but the ulcer returned, proving its malignant character, and then, instead of doing a radical operation for its cure, I attempted to cure it by simple and painless means, if possible. I have always felt that I had acted in a very silly manner. It was very foolish in me to be so anxious to prevent a scar, in the first place. The man came to me to be cured. A wider cut would have done the work effectually. On its return the arsenical paste would have destroyed all the diseased tissue. Instead I temporized by trying easy and not painful measures. My patient got tired and quit me just as he ought to have done. Hereafter whenever I pretend to do a thing I will do it.

One of the greatest, if not the very greatest, agencies in carrying patients from this State is the Baltimore and Richmond commercial drummer. There is not a hotel in any North Carolina hamlet in which these gentlemen have not told of the wonderful things done in their respective cities. At present the Baltimore drummer is ahead, as he has the great Johns Hopkins Hospital to talk of—truly a great and grand institution, but it is doing more to kill surgery in North Carolina than any other one cause. The drummer spreads its fame everywhere—in all the hotels and many of the stores in which he sells goods.

So long as it remains a natural trait of humanity to believe the best things and greatest men are in another town just so long will people look to them for better things, and men above the commonplace. There is a way to change this. A word about these patients who go to the great hospitals and the effect of their going upon the community's estimate of the local faculty: My opin-

ion is based upon the manifest effect that has been produced here, and, I presume, the same condition prevails elsewhere. The first woman who went to Johns Hopkins Hospital, as related above, would not have gone at all if her attendant and myself had done as good business policy dictated. She ought to have been kept well in hand and an exploratory incision made to verify or disprove the diagnosis. The tumor having been made out, the operation could have been completed. She went to the hospital as a charity patient, and induced the other woman to go, who could have paid a fee of \$500. She had learned the trick and got through without paying.

In one other case a countryman consulted me in regard to a small tumor which had appeared on the outer margin of the iris. The prognosis was given that it would continue to grow and require finally the enucleation of the ball, which I told him I would do when the condition of the eye required it. This condition was reached in six months. He was naturally much distressed about his condition and talked about it with all whom he met. They all told him something, and he was induced to go to the Presbyterian Eye and Ear Hospital in Baltimore. I had told him my fee would be \$25, and he said if the eye had to be enucleated he would return and have it done at home. However, when he got there he was persuaded to have the operation done there, and paid \$20 for it.

Upon the return of this man the local editor made a note in the paper to the effect that Mr. T—— had just returned from Baltimore, where he had gone to have an operation performed.

As may be imagined, this was a case over which I was a little sore. Editors, as a general thing, are very good fellows,

and desire the prosperity of home-folks. I went to him, had a little talk with him, in which I showed him that when a patient went out of the State to have operations done which could be done well at home, that it reflected on the home faculty, and that a publication of the fact was calculated to do the home doctors harm by directing attention abroad. He saw it as I did, and not only promised that in future nothing of the kind should ever appear in his paper, but the next issue scored those parties who had gone off to have work done that could be done just as well, and sometimes better, at home.

We will relate one other case: A lady in rather poor circumstances, in a neighboring town, had cancer of the uterus. She consulted a local surgeon of known ability, who advised her to go immediately to Johns Hopkins Hospital. She went. She was that sort of woman for whom any kind-hearted doctor would have delighted to have done a kind deed. The operation was a success. The surgeon who sent her away is too big a man for professional jealousy to have actuated him in getting her off to prevent some one else from doing the work. He is thoroughly competent to do it himself. I do not think it was lack of interest in maintaining the honor of the home faculty. It was just pure kind-heartedness. He knew that it would be done at Johns Hopkins Hospital as well as at any place in the world; besides it may be he did not care to go to the trouble of getting everything in order for an aseptic operation, or may have been too busy with other work. Be this as it may, that community will feel the effects of this visit to Baltimore. This lady will be the means of sending other patients out of the State for surgical treatment. How could she help it? How can any patient who gets

cured of a terrible disorder help praising the doctor who cured her? Praising a doctor is advertising him—that's the way all doctors get reputation among the people; it is their supposed or real cures that bring professional work.

There is another thing that carries patients to the North and I will only mention it. It is that it often gives some doctor a chance to take a free ride and spend a few days in a large city at some one else's expense.

The city doctor who submits to indignities from managing boards of public charities does it because his reputation is extended by the praise of the many mendicant patients. The mistress of the house hears of him through the servants who attend his public clinics. He gets advertised and does not violate the Code, and his struggling competitor, who has not enough influence to secure his place, envies him, but cannot help himself. So jealous are many of these hospital appointees of their advertising monopoly, they will not allow the names of their clinical assistants to be published in their hospital reports.

In the foregoing we hope our illustrations have been sufficiently plain to enable us to arrive at a just estimate of the condition of affairs that is leading to, and increasing, the habit of people going away from home for treatment, and thereby tending to retard the development of first-class village physicians and surgeons. To recapitulate: Those physicians who have neither taste, talents nor instruments for the performance of even minor operations, are apt to encourage patients to go off for treatment. The Code is very specific about the encouragement of consultations. It does not take one very long to find out that the man who is always calling on his brother doctor for help soon helps himself out of practice unless

said consultations are attended with no additional cost to the patient. The additional fee incurred is the point that turns the scale against the attendant. Patients take a business view of the situation. If the employment of Dr. A—— means a bill for Dr. B——, why not employ Dr. B—— in the first place, and save Dr. A——'s bill?

Take away the fee and it puts consultations before the people in quite a different light and does more to encourage a feeling of fellowship among doctors than anything else. Dr. A——'s patients feel that if he needs any help or counsel, he will call in Dr. B——. Dr. B——'s patients have the same feeling about Dr. A——. Drs. A—— and B——, with the fee out of the way, are oftener associated together and feel more like upholding each other's hands. Each doing the other favors, cements friendship. With us in Kinston there is not a doctor whom I would not readily serve without any thought of a fee, and not one who would hesitate to render me any aid possible. There is no doctor so smart or so well equipped that he cannot be aided at some time by the dullest man in the profession. While with us the consultation fee has not been abandoned entirely, none is ever charged unless the attendant says charge. There has been no agreement among us about this matter—we have just dropped into it.

As a starter towards the prevention of patients going off, I think free consultations would be one of the best moves. All patients consult some home doctor first; if the home doctor feels free to call upon any brother to aid him, and feels that such aid will be cheerfully given without a fee, he will be more than apt to ask for it: even if the party called on should do an operation or give his time to after-treatment, such being done cheerfully, there is begotten

a feeling of good-will all round. With such a state of affairs, rare or difficult cases would be apt to be seen by most of the home doctors, and each one doing his best, it would be rare for any case to be sent away, and only such would go as could not be attended to at home.

The condition of affairs which would follow a system of free consultations would give the doctor who has surgical talent a chance to see all cases in his section, his work would redound to the credit of the local profession, the brilliancy of his results would be shared by all the members of the local faculty. A successful operation would cause a talk of what the doctors had done, and not what Dr. A—— or Dr. B—— had done. The material interests of the members of the profession are so interwoven that one man in a locality cannot push out from the balance and steer his boat to the harbor of success without carrying all the rest of his craft with him.

Free consultations, by bringing doctors closer together, unifying their interests, stimulating each the other to do his best, will do away with the small jealousies, and cause the profession to be held in much higher esteem by the people. When such a state is brought about it will bring confidence on the part of patients, and they will hesitate about seeking outside aid until advised to do so by more than one doctor.

The general belief that other communities contain greater and smarter men pertains to the people of this State probably more than to any other. An hereditary indisposition on the part of our people to say pleasant or complimentary things about their friends or neighbors, fosters this belief and tendency. Was there ever a doctor who was not asked his opinion about a brother doctor? How many of us

make it a point to say something pleasant and complimentary? It can always be done and the truth not violated. Everyone has good qualities either of head or heart.

When members of the profession begin to show faith and confidence in, and esteem for, each other, then the people will show the same for them.

The State Medical Society as a body has contributed in no small degree towards this habit of sending patients out of the State. Gentlemen coming from other States to read papers before the Society get a large amount of free advertising. The Society gains nothing. It is all very well to encourage fraternal feeling with the societies of other States, but in the present condition it is bad policy to do so. Our men may go before other societies and read first-class papers, exhibit any amount of ability, and the advertising they get does not work any personal benefit or reflect any credit upon our State, for the reason our State has not as yet developed any men of great eminence in the profession, and until such is done outside people will not look this way for great physicians and surgeons. We have as good material here as can be found elsewhere, but up to this time conditions do not exist which will produce men of great national prominence.

The number of people who have already gone outside of the State for treatment and recovered is so large and they are such enthusiastic praisers of outside parties, that it is a hard thing to break their influence. Every cured patient sends another, and the process will continue for all time unless there is some means devised to stop it. It is impolitic to say anything about the matter to these parties themselves, but inasmuch as the local paper always notices the going and returning of these

people, we can limit the baneful influence upon the home profession by speaking with the editors on the subject, and requesting them not to mention the matter in the paper. All editors with whom I have talked about the matter have seen that such locals did the home profession no good, that they were giving away good advertising to the outsider and getting neither pay nor thanks.

The persistent advertising of the city doctor cannot be stopped. Our resource, then, is to checkmate him. This advertising is done in various ways, sometimes clippings are sent to newspapers to be copied and are paid for at regular rates; at other times country papers publish as news advertisements that are paid for in one paper, but are so carefully and adroitly worded that they appear as matters of news and special interest. The grandest advertising scheme that we know of is the preparation of special subjects for the high class magazines of the country. We call to mind three of these—one in the *Cosmopolitan*, by a distinguished New York oculist; one by a noted Philadelphia surgeon in *Harper's Magazine*, and another by a British surgeon in *The Forum*. A paper upon a special subject by a specialist in lay papers or magazines plays the part of an advertisement, and is as much a violation of the spirit of the Code of Ethics as a paid advertisement in the newspaper. It brings the author before the public and informs them of his qualifications.

The most serious and difficult part of the problem to solve is how to overcome the influence of the great hospitals of the cities. So long as country and village people generally were ignorant concerning the great hospitals, or thought that they were pay institutions, they were not any great drawback to country

surgeons; but now the drummers sing their praises in every hamlet. Indolent, incompetent and jealous doctors persuade everyone who needs surgical treatment to go there; the patients who have already gone and been benefited are their best advertisements. The people generally know that if they have no money when they get there that they will be taken care of and treated free. I have felt the competition of the city hospitals keenly within the last two years. One of my cases went off to have a lithotomy done because he believed he could get it done for a smaller fee than I charged, but, instead of that, it cost him \$100 more. His operation fee was much less, but the extras brought it up considerably. Another had an operation done at a city hospital for \$20, while my fee was \$25. Another threatened in case he had to have an operation to go to Philadelphia and go in a charity hospital if I did not agree to do it for less than his passage money. Being brought face to face with such things, it has caused me to give the problem of the city hospital serious consideration.

If the board of managers of the great Johns Hopkins Hospital knew to what extent they are imposed upon by North Carolina people, we do not see how they would complacently submit to it, if they are humbugged into treating people as charity-patients from all parts of the country as badly as they are from this. The fees that these people could easily pay, if thrown into one man's hands, would more than double the largest professional income in the State.

The managers are swindled and the North Carolina profession is damaged, not only in pocket, but, worst of all, in public estimation.

We hardly think they would run a medical school to teach men the science

and art of medicine and then knowingly enter the field to take away practice from them, and do it for nothing. Such would not only be bad faith, but absolute dishonesty and stupid squandering of money under the guise of charity.

Under existing circumstances there are many surgical cases in the State that ought to receive charity from any source they can obtain it, but my observations demonstrate that those who go off are not the ones. I have never known a party who went off who could not pay something. Parties who are able to buy new clothes for the occasion and pay first-class passage to and from Baltimore, ought to be made to pay for services after they get there. They could stay at home and pay. The very poor cannot get off—they stay at home and suffer or fall into the hands of the home surgeon, who has to pay for all their expenses and do his work for nothing. If the managers of the great hospitals would pay the traveling expenses of the indigent poor to and from their institutions, we could find no fault with them, but taking people who can pay fees, entering the field in competition with the general profession, who have to live by fees, and doing good work for the asking, looks as if they entertained the idea that the grandest charity was the keeping of the poor doctor poor, and that the grand way to give him reputation and standing was to rob him of every opportunity to do anything greater than routine medical practice.

Having discussed the general question as to the reasons patients leave the State and the remedy, we now come to the question of how the individual members can help change this undesirable state of affairs.

First, each and every doctor should determine to become a better doctor as

he grows older; his work should always be done to the best of his ability. He should never think he can ride roughshod over his competitors, no matter who they are. The doctor who thinks he gains anything by keeping fees out of his competitors pockets, is an absolute fool. There is no truer saying than "A hungry dog makes a hard fight." Make it hard for your brother and he will make it hard for you. Show him favors and they will be returned. Like begets like the world over.

The impediments in the way of one's becoming a skilled surgeon are largely of the individual's own making or are due to a lack of knowledge of the difficulties to surmount after the necessary technical training has been passed. There is not a county in the State that does not contain many neglected cases. These are among the very poor. Our people not being given to charity, these very poor are suspicious of an offer to take care of them, and do their work for nothing. I usually manage them by telling them that if they will work it out I will operate. While my surgery generally has paid very well, yet I have a very singular experience. Eleven cataract operations enriched me with \$1.80; four abdominal sections paid me \$25; and for five lithotomies I received one-half day's work from a laborer. I have repaired the perineum forty-nine times, and have gotten not to exceed \$200 out of the entire number; yet, upon the whole, over 50 per cent. of my entire professional income is from surgery. The man who becomes discouraged because he does not see his money lying right before him, had better confine himself to medicine proper and leave surgery to those who have lasting tenacity of purpose.

I sincerely hope to see the day when every county in the State will develop

one or more first-rate general surgeons. If we will help one another and resort to every honorable means to keep these cases in our own borders, we can do it. It is every man's duty to advance his own individual interest, but in the name

of all that is high-toned and honorable, do not try to drag down your professional competitor and fellow-craftsman. What is to the honor of one is to the honor of all men in the same calling.

H. O. HYATT, M.D., Kinston, N. C.

Society Reports.

THE USE OF PROPRIETARY OR SECRET REMEDIES BY THE PHYSICIAN.

(Read before the Medical Society of Guilford County, April 2, 1894, by
Dr. W. P. BEALL.)

The last quarter of the 19th century has been preëminently a period of rapid advance in all lines of medical and surgical work. It has seen the introduction and the perfecting of antiseptic and aseptic technique in surgery, enabling us to cope successfully with many surgical conditions that were the despair of our Fathers, and has established the axiom that absolute cleanliness is the one great *desideratum* in surgery.

During this period the systematic study of pathology and experimental physiology has made clear the general and specific causes of many diseases, and we have learned that all true progress in medicine as a science lies in the direction of preventive medicine. But in no line, perhaps, has more advance been made than in *Materia Medica*. The aid of chemistry has been invoked, the active principles of bulky drugs isolated, new combinations discovered, and the animal, vegetable and mineral kingdoms ransacked for additions to our armamentarium. But unfortunately there is no unmixed good in this world. Limiting our investigations

to the last-named branch of medicine, we find that enterprising chemists and pharmacists, taking advantage of this legitimate demand for improvement in our *Materia Medica*, are constantly bringing to our notice new remedies, which may or may not possess merit, and are making use of every art which large business experience suggests to secure their use by the profession.

Every medical journal is filled with advertisements, reading notices, etc., insistently calling our attention to some combination of drugs, usually under a copy-righted name, which the maker assures us always produces much better results in any given case than can be secured from any other combination of the same drugs prepared by any one else! The drummer brings these things to our offices, gives us an instructive lecture on the valuable properties of the remedies he represents, presents us with a few doses of his cordials or emulsions, and urges us to have our local druggist lay in a good supply of his nostrums to meet the demand sure to arise as soon as we have tried the

samples. The foreign chemist varies this program a little by offering through A. & Co., sole agents in the United States, some new chemical product, with a name derived from the Greek, *carefully copy-righted*, and the mode of preparation withheld; but the rest of the program is essentially the same, except that he never gives samples!

This brings me fairly to the subject which I wish to present for discussion to-day, viz: What should be the attitude of the physician toward these copy-righted remedies? Let us look at the matter first from an ethical point of view. In Article V. Code of Ethics we read: "A physician should lend his influence to establish a distinct line between the regular practice of medicine and the practice of quackery; and should avoid any act which might tend to weaken such a distinction either in the professional or in the public mind."

We know that the successful quack usually reaps his harvest by claiming the possession of remedies (known only to himself) of more potency than any known to the regular physician, and he conceals them, under fanciful names, or by exacting a pledge of secrecy from his patient; and these claims and acts are regarded as containing the essence of quackery. Let us test some of these remedies by this standard. I quote from some advertisements taken from various medical journals: "Peacock's Bromides produce results which cannot be obtained from the use of commercial bromide substitutes." "Chionia stimulates the liver and restores it to a healthy condition without debilitating the system by catharsis." "Cactina is the best cardiac and general tonic in the *Materia Medica*, and therefore *indispensable* in the treatment of every form of weakness," etc.

In one medical journal I found adver-

tised more than 100 proprietary remedies, foreign and domestic, and 23 came from St. Louis.

Compare these extravagant commendations with the regular patent medicine advertisements in newspapers and almanacs, and then say whether, by prescribing, and thus endorsing, these remedies, we are not weakening "the distinct line which we should maintain between regular practice and quackery."

It is true that some of these combinations are accompanied by formulas upon which are based the claim of superiority. Let us examine some of them.*

As you see, most of these formulas contain drugs, of whose medicinal value we know little or nothing, combined with some well-known drug—the latter usually in trifling proportion. Do these prominent constituents of the formulas really possess such magical powers? If so, the revisers of the United States Pharmacopœia were very remiss in not according to them a prominent place in the last edition.

While I freely admit that some of these preparations are of therapeutic value, and can be used by us with advantage to our patients, I contend that the vast majority of these are unnecessary, for the reason that our local druggists can compound for us our own prescriptions, which are equally good or better (and usually cheaper for the patient), and hence we are unfaithful to our obligations to the Code in using them.

But if it is contended by any that this devotion to the principles of the Code is sentimental rather than practical. I submit that there is also a business side to the question that is eminently practical.

*Lack of space prevents the reproduction of these references.

If our patients find that we always give bromidia for sleeplessness, Fellows' hypophosphites as a tonic, antikamnia for neuralgia or headache, lactopeptine for indigestion, Platt's chlorides or listerine for disinfectants, etc., their business sense at once suggests to them to avoid in the future the middleman, i. e., the doctor, and to buy these things directly from the druggist; and thus our incomes are diminished, and what is much worse, our profession is degraded in the eyes of the public into a mere annex to the drug store, and we become blind distributors of remedies about which we know no more than the manufacturer may choose to tell us. Indeed, this condition of affairs already begins to exist. Everyone of us has had patients come to us for advice, who stated that they were already using, or had tried, some one or more of these copy-righted remedies. And the makers of some of these remedies, which were formerly offered only through the medical profession, now boldly offer them, through the secular and religious press, directly to the public. I mention as examples Scott's Emulsion, Hammonds' Animal Extracts, Horsford's Acid Phosphates, Syrup of Figs, etc., and as soon as we, by prescribing, have created a sufficient demand for their goods, this example will be followed by many others.

It is manifestly impossible, however desirable it may be, for us to discard at once all of these proprietary remedies, for the list includes some we could illy spare. Some are combinations of well-known drugs in more palatable or sightly form than the ordinary druggist, with the means at his disposal, can prepare; and as long as we strive to cure our patients "quickly, safely and pleasantly," we cannot neglect any means to gain that end. But while we may not be

able to crush out the evil entirely, we can do much to abate it.

I know it is very much easier for a tired or lazy doctor (and each one of us is *sometimes* both) to write a prescription for a ready-made medicine, accepting without question the claims of its manufacturer; but such a *habit* inevitably limits the growth of our professional knowledge and tends to lower our standing in the eyes of the layman, and is therefore to be avoided.

Let us, instead, study our official *Materia Medica* more thoroughly, and, selecting therefrom a list of drugs sufficiently large to meet the usual demands of our practice, let us master their *recorded* effects upon the human system, and then, by painstaking observation at the bedside, verify the record, and learn the effects and *limitations* of drugs; for thus only can we become discriminating practitioners.

Let us never forget that our chief reliance in treating disease must ever be the "*Vis Medicatrix Naturæ*," and we will then pay more attention to aiding her efforts, by the wise use of nature's remedies—air, rest, diet and bathing, and will place drugs in the subordinate position they should really occupy.

Let us refuse to use or prescribe any remedy the definite formula of which is not submitted to us for our guidance; anyone for which claims are made which we know must be extravagant or misleading; and anyone which is offered directly to the patient by either maker or druggist.

Adherence to these suggestions, I think, would very soon greatly lessen the evil under discussion, and in time put all these preparations where they belong—either on the official list or among the regular patent medicines: "A consummation most devoutly to be wished."

In conclusion, let me say that I have not attempted in this paper to present all the phases of the subject, but merely to indicate the line of discussion and to point out the direction in which, as I conceive, lies the remedy; and if I have succeeded in arousing in you some recognition of this evil, as insidious as it is encroaching, I shall feel that my time and yours has not been wasted.

DISCUSSION.

Dr. Hays said: I was very glad when Dr. Beall was appointed to write this paper. We all anticipated a good paper, and I am sure that none have been disappointed. If all agree with every suggestion that has been made and will put a check on ourselves, our lazy habits, of prescribing these remedies of which we do not know the ingredients, a ball would be set in motion by the Society in Guilford county that would roll from sea to sea. There is a certain preparation that I use which seems to be a nice pharmaceutical compound. I wrote to the makers for the formula and was refused it. I have declined to prescribe any more of their remedies. I think we ought not to put on the public any medicines when we cannot find out what they are. We ought not only to decline to use them, but we ought to do all in our power to keep others from using them. I want to offer a resolution which I hope will pass this Society and also the State Medical Society. I want to introduce a resolution pledging ourselves not to use, under any circumstances, any drug which is advertised directly to the public, either by the maker or by any local chemist or pharmacist. However effective they may be in accomplishing the result, I shall not use any drug that is advertised in the daily papers. The patient will go and get the medicine, and then think "what

is the use of his going to a doctor?" The advertisements tell exactly the disease for which to take the medicine and just the amount to take. If we shall maintain our self-respect and our bank accounts, it is time we were taking a step against this crime.

Resolved, That the members of the Guilford County (N. C.) Medical Society pledge themselves to abstain rigidly from the use or endorsement of any manufactured drug or medical preparation which is offered directly for sale to the public, or any combination of drugs the definite formula of which is not submitted to our approval, and that we call upon our medical brethren throughout the country to unite in abating this growing evil which threatens our profession, both from an ethical and business point of view."

This resolution will not cover patented surgical appliances, or Buffalo Water, or natural agencies, so to speak, and it seems to me that that covers the ground. A certain preparation of bromide costs a dollar for eight ounces. A similar preparation can be made for about half that price.

Dr. Schenck: In regard to this matter, I very thoroughly agree with Dr. Beall, and it strikes me that another reason for not using these secret preparations is a moral one. We each and every one of us, when we graduated, took an oath that we would treat our patients intelligently, and we go out every day and act the lie about it, for we do give these things. There is another moral question, and that is the question about patients. They put their lives and their money in our hands that we shall spend that money for them. It seems to me that it is our moral duty to think well before we spend this money, no matter how small the amount. It is absolutely wrong, morally, for us to prescribe medicines about which we know nothing,

and we do know nothing about patent medicines.

Dr. Fox: As a matter of course, while I prescribe these remedies, I look upon it as a great evil. Now, when we approach a patient who is needing our attention, if we could only keep before our minds what we want to do, the line of action necessary to relieve that patient, we would not be so prone to prescribe these remedies. Assimilation, elimination and nutrition are the three grand principles of the practice of physic. These three things give us about all we can hope to do in any case, and if we can only think of all this, and then fall back on such remedies, how foolish it looks.

Dr. Richardson: I do not want to say much. In fact, I am so guilty that I cannot say much. As much as possible I expect to follow Dr. Hayes' resolution, but I do not know whether I shall vote for it or not. He speaks of our declining to prescribe those things that are advertised to the public. There are not very many advertised to the public. Dr. Beall has said that since we use them, we advertise these medicines to the public. There are certain of these remedies that I prescribe constantly. I do not prescribe all those things from St. Louis. I prescribe things when I do not know where they come from. I had not intended to say anything on this subject, and it was just to tell you that I had prescribed such things that I rose. I wish to congratulate the Society on having discussed this subject, and to congratulate Dr. Beall. We are getting close to the line where our practice leaves off and quackery begins. I am certainly going to profit by it. I shall not forget this morning, and whenever I begin to prescribe a certain compound, I shall try if I cannot get up a preparation of my own that is somewhat palatable, and of which I know something.

Dr. McLean: I just simply want to express my gratification. I had begun to think that perhaps I was a regular old fogey, and had gotten behind everybody in trying to stick to the Code of Ethics, as laid down by the American Medical Association. I am not entirely guiltless. In the main, I think it is the duty of every regular physician to stick to the Code of Ethics. We are diverging very much from that standard. I am glad to find that there is, perhaps, a reaction going to take place.

Dr. Cox: I feel as if I were being tried. I congratulate Dr. Beall very much on his paper. I think it is a very good thing, if we can stick to it and leave off using those proprietary remedies. But I do not know that I shall be able to do it. Still I have never used them very much.

Dr. Beall: The resolution does not, it seems to me, cover the grounds by any means. It only forbids us to use any preparation that is directly offered to the public. There are preparations which are not offered to the public through the daily press, but they are offered in other ways, and we are expected to take them and dispense them without knowing anything of the formula. The chemical preparation, as given by the company, will not make bromidia—when tried the result is very different in appearance from that sold by them. But if it could be made as Dr. Hays says, the price would be reduced fifty per cent. But if the resolution is so amended as to cover this most important point, we should bring credit upon ourselves by adopting it and carrying it out.

(The resolution is printed above as amended.)

Dr. Richardson: How can we know when we get a correct formula? It can be taken up by some working chemist and verified. If a preparation comes

out claiming to contain certain things, you will find in a short while that some chemist has taken that preparation and has either proved or disproved it. There may be some remedies that we may use, there may be something that we do not want to give up, from the use of which we had received good results. But in the main, I think the resolution is a good thing. My knowledge every time is not equal to the occasion of compounding drugs as they should be. Therefore I fall back on these things. But for the good of the profession, my-

self and the people, I think I am willing to do my best to throw it off. I should like the resolution carried unanimously.

Dr. Schenck: As there is objection, by several of the brethren, to the verbiage of the resolution, can we not all resolve that it is *our duty* to do this thing, and if we break the resolution, we can make another and try again. It would not do to pledge ourselves and then break it.

The resolution was carried by a majority of 11 to 3.

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Dr. Charles Edouard Brown-Séguard died, in Paris, April 2d, 1894.

Dr. R. F. Lewis has changed his location from Lumberton to Raleigh, N. C.

The State Board of Medical Examiners will meet in Greensboro, on Monday, May 14th, 1894.

Dr. John H. Rouch, formerly President of the Illinois State Board of Health, died March 25th, 1894.

Dr. J. A. Faison, whose advent to Wilmington we noticed in our last issue, has returned to his former home.

Dr. W. P. Beall, Chairman of the Committee of Arrangements for the approaching meeting of the Society at

Greensboro, asks us to announce that reduced rates have been secured from the hotels, and rates will be as follows for members of the Society and visiting physicians: Hotels, \$1.50 to \$2.00 per diem. Boarding-houses will take transients at \$1.00 a day.

The Society will be asked to make recommendations to the American Medical Association in regard to proposed changes in the Code.

The graduating class in medicine at Shaw University (for colored men), Raleigh, N. C., numbered seven. This was out of a class of upwards of 50.

Dr. J. D. Roberts has removed from Durham, N. C., to Dade City, Fla.

Reading Notices.

J. S. TYREE, Washington, D. C. :

DEAR SIR :—I wish to say that, in all the 23 years of my practice, have I ever found any wash, lotion or compound equal to your Pulv. Antiseptic Comp. It is wonderful in its action.

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CHAS. DAY, M.D., 79 St. Mark's Square, London, says :—I have prescribed your preparation, Iodia, with very satisfactory results. Its power of arresting discharges was very manifest in a case of leucorrhœa, and another of otorrhœa. In the latter case, the result of scarlet fever in early life, the discharge had existed for many years. The patient could distinctly feel the action of the Iodia on the part, and the discharge gradually dried up.

TREATMENT OF EPILEPSY.—This malady gracefully submits to the Walker-Green formula of Elixir Six Bromides. Begin with one teaspoonful four times a day and increase the dose to twice that quantity if necessary. Prof. Ball, of Paris, used to give to the epileptics simultaneously with the Bromides the following :

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We are in receipt of a card of excellent pens that the Angier Chemical Co. of Boston, Mass., is sending to the medical profession. These cards not only furnish the doctor with some good pens, but act as a reminder to him that Angier's Petroleum Emulsion is the modern remedy for throat and lung troubles and wasting diseases generally, the Company claiming that it is much more than a substitute for cod-liver oil, and that it is pleasant to take. This Company is at present running a very bright series of advertisements in our JOURNAL. If you have not received a card of these pens, we think the Company will take pleasure in sending them on request.

Mr. J. Watkins Lee, feeling that some people decide early on where they shall spend the summer, has an attractive advertisement in this issue, covering pages 2 and 3. Rawley Springs is an ideal resting-place, situated in one of the most attractive spots in Virginia.

Dr. Hunter McGuire, in feeding two of his own children on cow's milk, had No. 2 Buffalo Lithia Water substituted for the lime-water generally used, with immediate and continued good results. The water was added until the milk lost its acidity and was neutral or alkaline.

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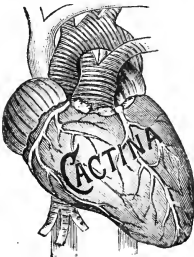
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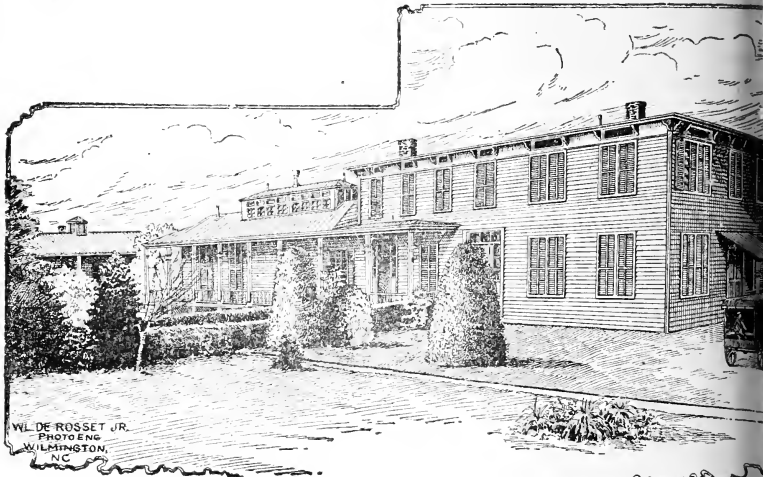
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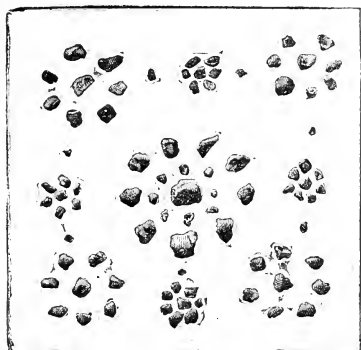


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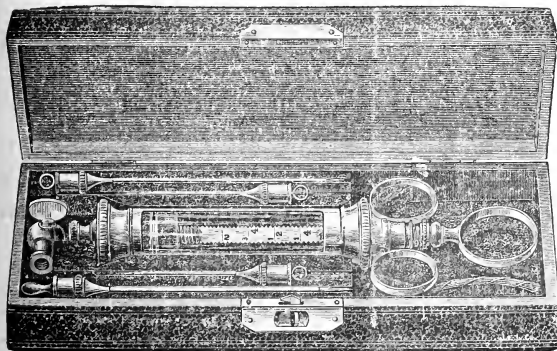
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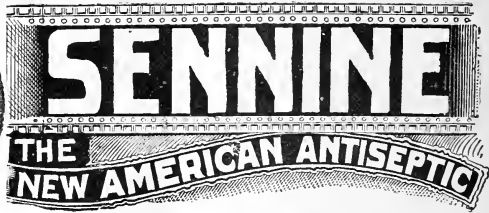
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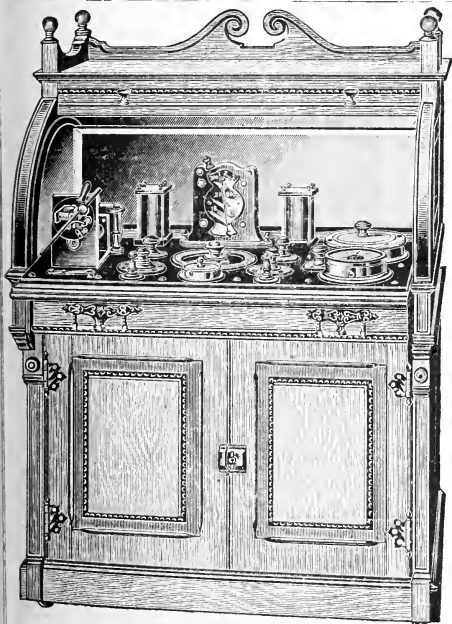
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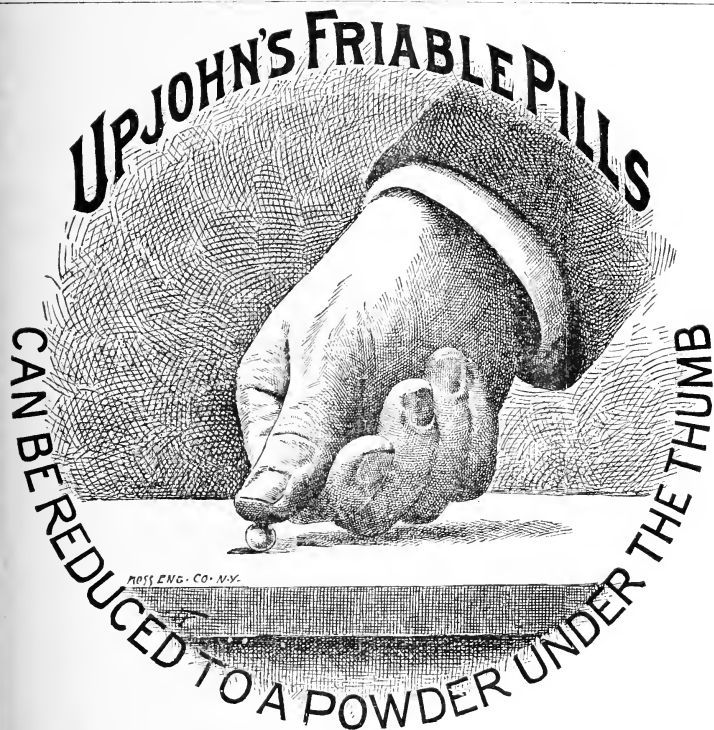


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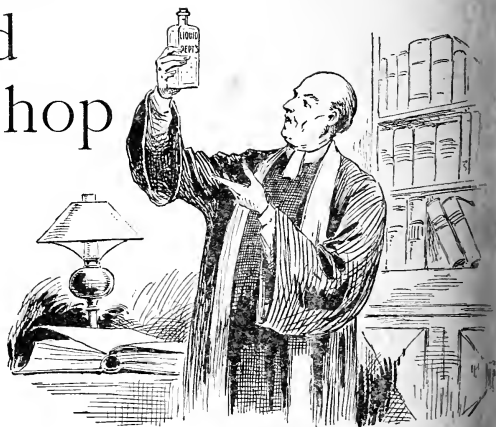
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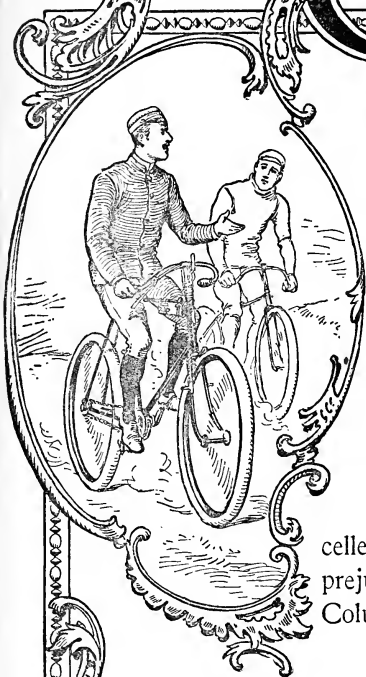
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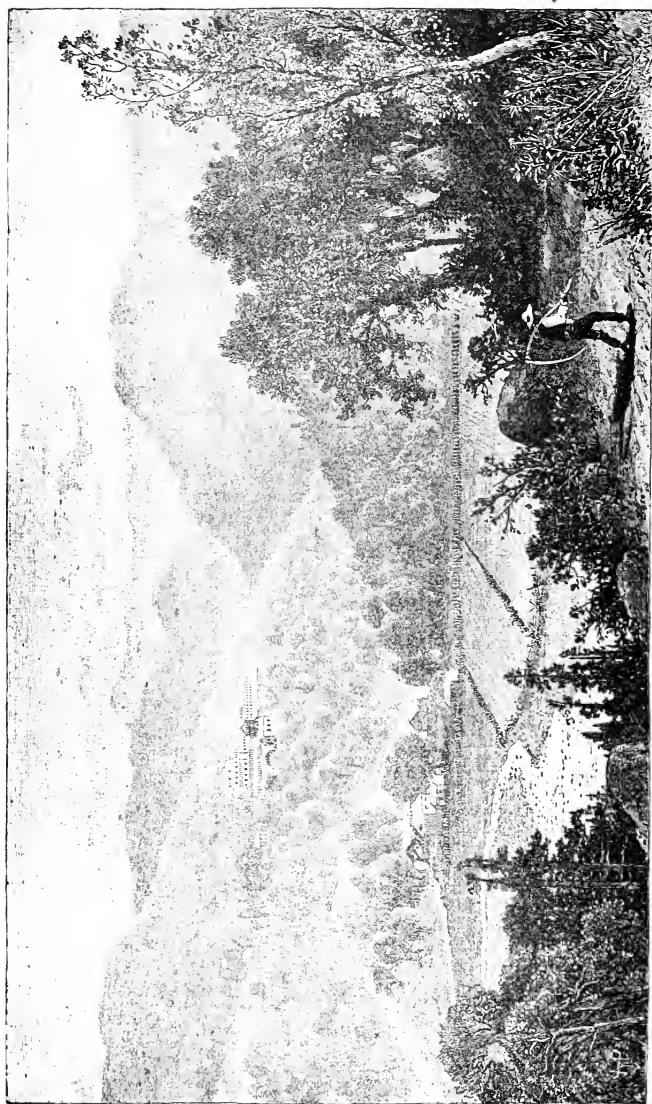
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Table of Contents.

Original Communications :

A Case of Entero-Laparotomy.— <i>P. E. Hines, M. D.</i>	189
Extirpation of the Kidney—Nephro- tomy— <i>R. L. Gibbon, M. D.</i>	192
A Case of Compound Depressed Frac- ture of Nasal, Nasal Process of Su- perior Maxillary, Nasal Spine and Nasal Eminence of Frontal, Crista Galli and Cribriform Plate of Eth- moid Bones, Involving the Right An- terior Convolution of the Brain— <i>W. E. Fitch, M. D.</i>	194
Two Cases of Tracheotomy— <i>James M. Templeton, M. D.</i>	196
An Unusual Case— <i>D. A. Stanton, M. D.</i>	199

Clinical Lecture :

Granular Endometritis—Menorrhagia from Fungus Endometritis—Dysme- norrhœa due to Antelexion— <i>Augustin H. Goelet, M. D.</i>	200
---	-----

Selected Papers :

A Note on Asepsis in Obstetrical Prac- tice.....	202
---	-----

Society Reports :

Eleventh International Medical Con- gress.....	208
South Carolina Medical Association...	213

Abstracts :

Kocher's Radical Modification of the Alexander Aliquie Operation; Sul- phur in Surgery; Gavage in Acute Diseases of Infancy and Childhood : Olive Oil in the Treatment of Nep- hritic Colic; Anal Fissure and Pain- ful Erosions of this Region in Infants and Young Children; The Bacterium Coli Commune a Cause of Appendi- citis; Bromide of Potassium and Salicylate of Sodium in Headache.....	216
---	-----

Editorial :

The South Carolina Medical Associa- tion.....	222
The Bulletin of the Board of Health....	223

Reviews and Book Notices :

A System of Genito Urinary Diseases, Syphilology and Dermatology— <i>Mor- row</i>	224
A practical Treatise on Medical Diag- nosis— <i>Musser</i>	225
A Treatise on Headache and Neural- gia— <i>Corning</i>	225
A Practical Treatise on Diseases of the Hair and Scalp— <i>Jackson</i>	226
Advertiser's Handy Guide.....	226

Correspondence.....

Notes on Practice.....

Miscellaneous Items.....

Reading Notices.....

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Index of Advertisers.

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Fairchild Bros. & Foster.....	Cover	1	University College of Medicine.....	17
Parke Davis & Co.....	"	1	E. A. Yarnall Co.....	18
Pope Mfg. Co.....	"	2	Wheeler Chemical Works.....	18
Mr. Fellow.....	"	3	Codliver Glycerine Co.....	18
N. Y. Pharmacal Co.....	"	4	C. F. Boehringer & Soehne.....	19
W. H. Schieffelin & Co.....	1		Wilmington City Hospital.....	20
J. Watkins Lee.....	2		Scott & Bowne.....	21
Sharp & Dohme.....	3		H. O. Hyatt, M. D.....	21
Henry K. Wampole & Co.....	4		Lambert Pharmacal Co.....	22
Summer School of Medicine.....	5		Mariani & Co.....	23
Virginia Pharmacal Co.....	6		Walker-Green Chemical Co.....	23
Queen & Co.....	7		Special Offer.....	23
Southerland.....	8		Thos. F. Goode.....	24
Antikamnia Chemical Co.....	8		N. Y. Pharmaceutical Co.....	25
J. S. Tyree.....	8		Bartlett, Garvens & Co.....	25
H. A. Kaysan.....	9		Harris Lithia Water.....	26
The Doliber Goodale Co.....	9		Maltine Mfg. Co.....	27
Wm. R. Warner & Co.....	10		Sneed & Co.....	27
Peacock Chemical Co—Sultan Drug Co.....	11		Dios Chemical Co.....	28
Battle & Co.....	12		McIntosh Battery Co.....	28
The Sanitarian.....	13		Cal. Fig Syrup Co.....	29
Od Chemical Co.....	13		Rio Chemical Co.....	30
Julius Fehr, M. D.....	14		The Upjohn Pill and Granule Co.....	31
Kentucky School of Medicine.....	14		Daggett Table Co.....	32
Bellevue Hospital Medical College.....	15		Listol Chemical Co.....	33
Chattanooga Medical School.....	15		Angier Chemical Co.....	34
University of Pennsylvania.....	15		E. V. Richards.....	34
University of North Carolina—Med Dept.....	16		Vaccine Virus.....	35
North Carolina Medical College.....	16		Special Offer.....	35
St. Luke's Home.....	16		Svapnia.....	36
			C. N. Crittenton.....	36

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Washington, D. C., January 3rd, 1890.
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A large teaspoonful to be added to a pint of water and injected freely 3 times a day.

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A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

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No. 5.

Original Communications.

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A CASE OF ENTERO-LAPAROTOMY.

By P. E. HINES, A.M., M.D., Raleigh, N. C.

(Read before the Wake County Medical Society, March 21st.)

P. N.—, a well-developed, muscular colored man, aged 35 years. He has suffered with inaction and pain in his bowels at different times since August, 1892. I was requested to see him in consultation by Dr. A. J. Buffaloe on Wednesday morning, August 23, 1893, at 9 o'clock, when I saw him for the first time. Dr. Buffaloe had been attending him since the preceding Saturday evening, August 19. He had given him purgatives and enemas without any effect and gave me a history of the case.

I found his pulse 92, temperature 100 2-5°, abdomen tense and tympanitic over the front and left side. Dull on percussion in the right iliac region and backward, between the crest of the

ilium and ribs, enlarged, bulged out, looking very much like an abscess in the right iliac region, extending upward, outwards towards the spine and inwards near to the median line. It was exceedingly painful to the touch. The transverse and descending colon was very tympanitic, the descending colon painful upon pressure, but not enlarged, bulging and circumscribed as it was on the right side. Notwithstanding the active purgatives and enemas, he had not passed any fecal matter in four days. He had passed, in his efforts to empty his bowels, several times, a small quantity of clear red blood and mucus. There were three or more such spots of it in the vessel when I saw him. He was in

a great deal of pain, in spite of the morphia given him hypodermically by Dr. Buffaloe, and could not remain in one position, but for a very few seconds at a time, being extremely restless. His mind was perfectly clear.

I concurred with Dr. Buffaloe in his diagnosis of intussusception or some other obstruction of the bowels. We decided upon an operation, if he and his family would consent to it. Dr. Buffaloe explained to him and his family the necessity for an operation, as all other remedies had failed to relieve him, and also the danger of the operation. We both informed them that an operation was necessary and the only way in which he could be relieved, and without an operation death was certain and near at hand. We explained to them the danger and the uncertainty of the operation very clearly.

After a family consultation, he and all of his family present consented that the operation should be performed. We immediately proceeded to make all necessary arrangements for operating, J. W. McGee, Jr., and G. A. Renn; both of these gentlemen gave us very valuable assistance during the operation.

At 1 o'clock p. m., all the necessary arrangements having been made, the preparation of the patient was begun by shaving the pubis, washing the abdomen with soap and water, ether and a 2½ p. c. solution of carbolic acid, and myself, Drs. Buffaloe, McGee and Renn, having thoroughly prepared ourselves by the very free use of antiseptics, the patient being thoroughly anæsthetized, I began the operation by making an incision about three inches long in the median line, between the pubis and umbilicus, down to the peritoneum, which I divided on a director and entered the abdomen. Believing the obstruction to be about

the appendix vermiformis or the junction of the ilium and colon, I examined that portion of the bowels first; not finding any obstruction here, I examined the small intestines, and, finding no obstruction, I enlarged my abdominal incision around and above the umbilicus, introduced my hand and examined the ascending, transverse and descending colon, until I came to the obstruction, at a point just opposite the anterior superior spinous process of the left ilium, which proved to be the intussusception of the descending colon, which was reduced in drawing the colon to the opening, where I could see it. Upon examining the colon, I found an obstruction in the bowel, just below the intussusception, which felt like a piece of hard fœces, which I at first thought it might be, but, upon examination, I found it to be immovable and attached to the bowel, and that it was a tumor of some kind. I tied a piece of tape around the colon, above and below the tumor, and made an incision lengthwise into the bowel, turned out the tumor and applied two ligatures through the base of it with a needle, tied them and cut off the tumor, which proved to be a fatty tumor, as large as the largest English walnut. It was covered with the mucous membrane of the colon. I closed the incision in the bowel with a catgut thread and running suture, removed the pieces of tape from around the bowel, replaced all of the bowel, which had been turned out of the abdomen and kept warm and moist by covering them with towels soaked in a warm solution of Thierchs' Powder, viz :

R.—Acidi salicylici..... ʒ j.

Acidi borici..... ʒ vj.

M. Ft. ch., No. 1. S. To be dissolved in two pints and a half of hot water.

The bowels and the inside of the

abdomen were thoroughly sponged and cleared with this solution, and the incision closed, with interrupted silk sutures, through the peritoneum and the abdominal wall and reinforced with long, strong adhesive strips. Iodoform gauze was placed over the incision and covered thoroughly with absorbent cotton and a flannel bandage applied around the whole abdomen. Before he was removed from the table his bowels began to act.

On Thursday, the 24th, from 4 p. m. to 3 a. m., he had three actions from the bowels.

On Friday, the 25th, from 3 p. m. to 10 p. m. he had three actions.

On Saturday, 26th, from 3 a. m. to 10 p. m. he had six actions.

At 8 p. m. he was given a 1-grain opium pill, which was repeated from time to time, as required.

He was fed on liquids, milk, soup and liquid beef peptonoids.

At 10:35 p. m. the same evening of the operation (the 23d), his pulse was 92, temperature, 101 2-5°.

On the 24th, pulse 104, temperature, 101 3-5°.

On the 25th, 10:20 p. m., pulse 98, temperature, 102 1-5°, the highest temperature he had.

From the 26th to the 30th the pulse ranged from 81 to 88, and the temperature from 100 4-5° to 101 3-5°.

From August 30th to September 8th the pulse ranged from 64 to 88, and the temperature from 98 1-5° to 100 3-5°.

From September 8th to 12th, pulse ranged from 60 to 72, and the temperature from 98 1-5° to 99 1-5°.

He was given quinine daily and once a day a drink of whiskey.

On the sixth day (August 29th), I removed and renewed the dressing.

I removed most all the stitches on

the eighth day (September 1st), and the remainder of them on the thirteenth day (September 5th), and applied strips of adhesive plaster for support.

The union of the wound was complete, the patient expressing himself as feeling better than he had done in a year. He was soon sitting up, and not very long afterwards was walking about.

He has been at work on a farm for several months and continues well.

This operation was performed on short notice, in a small room 13 feet 4 inches by 13 feet 6 inches; without time or opportunity for disinfection, being the bed-room of his sister and her husband, located on a small alley in the Southern portion of the city.

His sisters and brother-in-law nursed him kindly, intelligently and successfully.

PALLIATIVE TREATMENT OF PROLAPSE OF THE UTERUS.—Dr. Datzento (*La Semaine Medicale*) finds a good method of treating prolapse of the uterus in cases where the patient has to be up and about to introduce a tampon into the vagina dipped into the following, after previous replacement of the uterus:

R̄.—Perchloride of iron . . gms. 8

($\bar{\text{S}}$ ij).

Glycerine gms. 200

($\bar{\text{S}}$ vjss).

This tampon is introduced every morning and removed every night, it being held in place by a band passing between the thighs and attaching to a belt. These are to be changed often, a vaginal injection being also taken every morning before introducing the tampon and in the evening after removing it.—*Lancet-Clinic*.

Suppose you subscribe to the JOURNAL now, and get the proceedings of your Society at an early date.

EXTIRPATION OF THE KIDNEY—NEPHROTOMY.

BY R. L. GIBBON, M.D., Charlotte, N. C.

In the spring of 1893, Mr. T. D—, an employe of a furniture factory, applied to the writer for treatment. He was 24 years of age, and had always enjoyed good health up to three years previous, when he began to suffer from a severe pain in the neighborhood of the left kidney, which, growing gradually worse, finally prevented him from engaging in any kind of work. This pain was usually worse at night, and was always increased by exercise.

He had been under the care of a number of physicians, but medicinal treatment had proven of little benefit, and he was finally advised to go North in the hope of obtaining relief by an operation.

Some months previous to the time I first saw him, he had gotten in the habit of taking morphine for the purpose of producing sleep, and this habit stuck to him, even after the original cause of his suffering had been relieved.

Nothing of interest was to be obtained from his history, beyond the gradual onset of the disease and the fact that he had never passed any calculi or gravel.

A careful physical examination threw very little additional light on the case; there was no enlargement whatever, and deep palpation revealed nothing in the shape of a tumor, and gave the patient very little pain.

Several specimens of the urine were examined. In all there was a large amount of what appeared to be pus. No albumen or sugar was present. The microscope showed phosphatic crystals in considerable amounts and pus corpuscles in abundance; there were no casts or blood-cells to be seen. The bladder was perfectly healthy.

The possibility of a stone in the kidney of a size too large to escape through the ureter, was suggested and the patient advised to submit to an early operation. After some natural hesitancy his consent was obtained, and a nephrotomy was accordingly done, the incision being made in the lumbar region, beginning two inches to the left of the spinal column and an inch or more below the margin of the last rib and extending obliquely downward towards the crest of the ilium. The kidney being exposed or incised, a considerable quantity of pus and urine escaped. Several calculi, somewhat larger than a bean could be felt in the various sacs or pockets into which the organ was apparently divided.

These stone were of phosphatic formation and quite friable, most of them being broken in the effort of removal.

In one of the more remote pockets another smaller stone could sometimes be felt, but its delivery with forceps was found very difficult, and the patient's condition under the anæsthetic being unfavorable, the kidney was hastily flushed with Thiersch's solution, a rubber drainage-tube introduced, the wound packed with iodoform gauze and the patient put to bed.

It was hoped that, the kidney being daily washed out with Thierch's solution, the remaining calculus would be dislodged and brought away, or perhaps dissolved. The patient's prompt relief from his former pain, and the fact that at each irrigation small pieces of stone and gravel were removed, seemed to give evidence of success.

In two weeks the patient was walking about, the drainage-tube being still in

position; as soon, however, as the tube was withdrawn, pus once more appeared in the urine, the characteristic pain returned, and the patient was in all respects as badly off as before. This time the pus from the kidney seemed possessed of very irritating properties, and a catarrh of the bladder was set up, which further complicated the case.

In view of the disorganized condition of the organ, it was decided to remove the left kidney.

On June 14th, six weeks after the last operation, the patient was placed in St. Peter's Hospital, in this city. An incision was made, parallel with, and a little to the left of the old cicatrix. The kidney was found much more easily than formerly, but surrounded by firm adhesions. After an ineffectual attempt to remove the entire mass, the kidney was peeled out of its capsule in the manner recommended by Gerster in such cases. The ureter and blood-vessels were separately ligated and the wound treated as formerly. The kidney itself had been converted into a sacculated pouch, and firmly imbedded in one of these sacs was found the remaining stone.

Recovery from this operation was slow, but uneventful, and there was immediate relief from all previous symptoms. The success of the procedure, however, is marred by the fact that the patient has continued the use of morphine, and this habit, with occasional indulgence in alcohol, will no doubt seriously impair his remaining kidney.

Extirpation of the kidney as a surgical procedure is of comparatively recent origin. The first operation of the kind is often credited to Professor Simon, of Heidelberg, in 1869. Dr. Malcott, of Milwaukee, however, removed a diseased kidney in 1861, under the impression that he was operating upon a cyst of the liver, and in the Transactions of the

Ninth International Medical Congress reference may be found to a Dr. Dunlap, of Ohio, who extirpated the kidney by abdominal section as early as 1841. The patient, a woman, survived the operation twenty days, and then perished from some intercurrent affection, so it is stated.

In all, nephrectomy has been performed about 532 times, with 177 deaths—being a mortality of a little over 33 per cent.

The operation of nephrotomy is of a much earlier date, having been successfully done in the 17th century. Dr. Tiffany, of Baltimore, has successfully performed a double nephrotomy.

In removing the kidney there can be no sort of doubt as to the superiority of the retro-peritoneal method of operating. I am not prepared to give statistics, but the advantages of lumbar nephrectomy, especially where there is reason to suspect the presence of pus, is sufficiently obvious to anyone.

In those rarer instances of neoplasms, cysts, etc., where the size of the tumor and the probable presence of firm adhesions, would seem to demand an abdominal section, the suggestion of Lange, that a preliminary nephrotomy will often so reduce the size of the tumor as to render removal by lumbar nephrectomy possible after a few weeks, is deserving of a trial.

In the Transactions of the Ninth International Medical Congress, previously referred to, may be found a report of three cases of laparo-nephrectomy for tumors of large size, and it is a significant fact that, in two of these cases, a collection of pus took place in the post peritoneal space, despite good aseptic precautions. In one of these cases a counter-opening in the lumbar region on the eighteenth day was necessary to save the life of the patient. In the second case, that of a child 22 months

of age, the presence of pus was not suspected until a post-mortem examination revealed a small quantity around the ligatures. The third case recovered after a considerable discharge of pus through the abdominal wound.

While, perhaps, in none of the cases could removal have been effected by the lumbar operation, they serve to illustrate in a forcible manner the advantages of the latter method, not only in preventing peritoneal infection, but in securing efficient drainage, which is the most important consideration in the after treatment of a case of nephrectomy.

The question of diagnosis in renal affections requiring surgical treatment is a very interesting one, and in not a few cases even the most experienced operators will fail to arrive at a correct conclusion. This difficulty of diagnosis seems especially present in cases of renal calculi, for Lange states that Morris operated 28 times for stone in the kidney in which no calculus could

be found. Neoplasms and cysts of the kidney have frequently been mistaken for similar diseases of neighboring organs, and even for ovarian tumors.

Another question of great importance, which must be settled, if possible, previous to an operation for nephrectomy, is the condition of the remaining kidney. So necessary is it to decide this point, that Lange recommends exploratory incision in the male, where other means have failed, and in the female, catheterization of the ureter after the plan recommended by Kelly. Gluck advises ligature or compression of one ureter, while the eliminating power of the opposite organ is tested by the hypodermic injection of some substance like the ferro-cyanide of potash or iodide of soda, which passes rapidly into the urine.

In the *American Journal of Obstetrics* for January, 1894, may be found a very complete description of catheterization of the ureters in the female by the aid of direct inspection.

A CASE OF COMPOUND DEPRESSED FRACTURE OF NASAL, NASAL
PROCESS OF SUPERIOR MAXILLARY, NASAL SPINE AND
NASAL EMINENCE OF FRONTAL, CRISTA GALLI
AND CRIBRIFORM PLATE OF ETHMOID
BONES, INVOLVING THE RIGHT-
ANTERIOR CONVOLUTION
OF THE BRAIN.

By W. E. FITCH, M.D., Graham, N. C.

On the night of March 20th, 1893, I was called to see a young man æt 21 years, who had been injured by the explosion of a Christmas gun, fired on the 24th December, 1892.

Not knowing what kind of instruments I would need, I carried my trephining

and major operating case, sutures, bandages, etc. Arriving upon the scene, I found the patient with an ugly suppurating wound between his eyes superiorly. Upon interrogation, I elicited the information that the gun had been tampered with that morning by some small

boys, who had taken out the breech-pin, and being unable to *scrawl* it in, had driven it in with a hammer, and when my patient fired the gun the breech pin flew out, the posterior portion striking him between the eyes and sticking into his head.

A physician was called, who dressed his wound and told him it would soon be well. It did not heal, however, and his physician was called to see him again. Erysipelas soon developed, lasting three weeks.

A consultation was held; the erysipelas subsided, but left him bald-headed, all his hair having come out.

This is the history of the case and the condition in which I found my patient. Suspecting, in fact knowing, that there was a serious wound to deal with, I proceeded to cleanse the wound surgically. Having done this, I made an incision from above downwards. To enable me to carefully examine the situation and extent of the wound, with patient in the dorsal decubitus, I made an examination with my probe, which of its own weight and to my surprise dropped downwards into his head at least $2\frac{3}{4}$ inches. I reversed the probe and put the other end, a spoon-shaped instrument, into the wound 3 inches and scooped out brain tissue from the right anterior convolution of the brain. Not deeming it necessary to use an anæsthetic, since he complained of no pain, I proceeded to operate without it. I flushed out the wound with a bichloride solution of 1 in 4000, washed and picked out a dozen or more spiculæ of bone, some as large as a nickel 3-cent piece, others very small, and I suppose quite a lot of the debris had come away in the form of a carious discharge. The internal angular process of the frontal bone was broken off as far backwards and upwards as the insertion of the

corrugator supercilii muscle, and I elevated and removed it with a pair of bone forceps.

The superior portion of the nasal process of the superior maxillary was fractured and gone. I sent to a drug store and got a bottle of Marchand's Peroxide of Hydrogen, and with a small glass syringe I injected the medicine in its full strength, which heroically attacked the decomposing bones and tissues, deodorizing decaying tissue, purulent and sero-purulent discharges. The disengaged oxygen forming a foaming lather, I continued this until the foaming stopped—an indication that the wound was clean. I brought the flaps together with silk sutures, covering the wound with iodoform gauze, and gave directions for the peroxide of hydrogen to be used every six hours till my return.

March 22d I saw patient again; he was feeling better; wound was better; temperature 101° ; pulse 110. I again used hydrogen peroxide until the foaming ceased, and put patient upon the following prescription: Syrup hypophosphite, with sulph. quinine, and a mixture of bitter tonics, containing 1.80 grain bichloride mercury to teaspoonful.

I saw patient again in a few days, and there was great improvement. The patient made a rapid recovery from what his first physician pronounced an incurable wound.

My patient soon gained strength, and, excepting the scar he will wear to his grave, he looks none the worse for the accident. His hair soon came out, but, strange to say, a shade darker than before.

—
EPITHELIOMA of superficial variety may be treated with alternate applications of 10 p. c. methyl-blue and 20 p. c. chromic acid.—(LAWRIE, in *Med. Record*.)

TWO CASES OF TRACHEOTOMY.

BY JAMES M. TEMPLETON, M.D., Cary, N. C.

(Read before the Wake County Medical Society, March, 1894.)

The physician who is called to the bedside of a patient dying from asphyxia looks upon one of the saddest, most pitiful forms of suffering with which our calling brings us in contact—a picture of agonizing distress, almost to the last moment of existence—he who has beheld it once would ever after gladly forego its repetition. The labored respiration, the restlessness, the anxious, haggard, pleading expression of countenance and violent, convulsive paroxysms of stifling, go to make up a scene that might well touch the hardest heart, and any procedure promising to avert a calamity so dire, may well command the attention of the most conservative, however great the attending danger.

That tracheotomy will in such cases furnish relief, prompt, grateful and often permanent, there can be no doubt, and, through your favor, it has become my privilege to open the discussion of this important subject.

It is not my purpose, nor is it your expectation that I should go into a detailed history of the operation or the various conditions in which it may become necessary, as this would transcend the aim and scope of this paper. I shall therefore confine myself to a brief practical discussion of two cases of tracheotomy, one for a foreign body in air-passages, the other for a case of true croup, which it became my duty to perform in the course of general practice.

The first of these cases I recall from memory, as it occurred some ten years ago, yet so forcibly were its details impressed on my mind they are as clear

and distinct as in a case occurring in the past few months.

Case 1.—In November, 1883, a man called at my office with his son, a boy 8 years old, for examination, explaining that a few days before the child, while eating persimmons, got a seed, or piece of hull, in the windpipe and had been suffering from it ever since. The boy, a sturdy, well-nourished little fellow, when perfectly quiet, was measurably comfortable, but the least movement brought on an attack of dyspnoea, with hacking, stridulous cough and the anxious distressed expression of countenance characteristic of obstruction to the respiration. He had been given emetics repeatedly, had been inverted and pounded in the back and subjected to various other treatments, all to no purpose. After a careful all round examination, I was satisfied there was a foreign body present, and Gross says "that fact established, the physician should operate as soon as possible"; hence I advised tracheotomy, but the father declined any surgical interference, and carried his son home.

About a month later, the last day of December, 1883, I was hastily summoned to see the patient, and found him very much changed for the worse, emaciated, weak and with incipient pneumonia of one lung. His parents, who had so emphatically opposed an operation when the chances were so greatly in favor of its success, were now, when it was very doubtful of its doing him any good, eager that he be given the benefit of it. As there was nothing else to be done, and the patient growing rapidly worse,

I decided to try it, and dispatched a messenger for a neighboring physician, and telegraphed to Atlanta for a tracheotomy tube. The messenger returned about sundown and reported my friend unable to come before morning, and my patient's condition demanding decisive action, I administered chloroform until he was under its influence, then had his father continue to give it under my direction, while I proceeded to open the windpipe. He was a good subject for the operation, being thin, the trachea and adjoining structures stood out clear, and all the surgical landmarks were prominent and well-defined, and the operation was practically bloodless.

When the trachea was incised there was a gush of muco-purulent matter, but I was never able to find any foreign body, and it may have been lost in this discharge, as the light was very poor, or it was imbedded in the bronchi or trachea. The windpipe seemed to be ulcerated, there was active inflammation at the point where it was opened, and it was in bad condition generally.

After the opening was made, my tube not having yet arrived, I found some difficulty in keeping it open, and, not liking the suggestion which has been made and practiced of cutting an elliptical piece out of the windpipe for this purpose, I bent two hair-pins, making hooks, or retractors, and by means of tapes around the neck kept the incision open. There was marked improvement in the patient's breathing and he rested more comfortably through the night, though worried at intervals by hard spells of coughing, by which he threw off a quantity of stringy, bloody mucus.

The next morning he began to sink rapidly, and died about noon.

The tracheotomy tube came about that time, also my friend, but it was too

large and we were never able to introduce it.

Had this patient been treated earlier, I believe the operation would have been successful, for his death was due chiefly to the exhaustion from prolonged obstruction of the air-passage and the developing pneumonia.

I have never been satisfied with myself for operating in the presence of that pneumonia, and, with the conservatism that has come with later years, I am sure I would not now attempt it under conditions so unfavorable.

Case 2.—On Saturday, December 9th, 1893, I was called to see a child 5 years old, suffering with croup. He had been given emetics and purgatives and steamed and poulticed, all to no purpose. After satisfying myself it was a case of true croup, I prescribed 1 grain of calomel every two hours, tincture of iron and chlorate of potash every two hours, to be given alternately, externally inunctions of quinine, onion poultices and inhalations of steam from lime-water, and next morning supplemented this with spray of nitrate of silver to the throat.

Under this treatment patient seemed to improve so that by Tuesday morning he seemed well on the road to recovery; however, I took the precaution to warn the parents that he might at any time take suddenly worse, in which event an operation would probably be necessary.

About 3 o'clock that afternoon I was summoned in haste to see my patient, and so sure was I that an operation would be required, I sent for my case of instruments and carried it with me. I found the little fellow, as I expected, in that condition those of you who have seen a patient die of croup know better than I can describe. I explained to the parents that a surgeon was needed and telegraphed to Raleigh for either Dr.

Hines or Dr. Knox; neither could come, and it being nearly dark when their replies came, and the patient sinking very rapidly, I sent for Dr. R. M. Patterson, and with his assistance opened the windpipe. After we had succeeded in doing this we found it impossible to introduce the tube we had, and we were under the necessity of sending to Raleigh for a smaller one, which was kindly furnished us by Dr. K. P. Battle, Jr. This entailed a delay of 4 or 5 hours, and during that time, to keep the incision open, I again resorted to the bent hair-pins with success. I may say, in passing, the country physician is often driven to expedients to which his more fortunate city brother is a stranger. I have frequently manufactured sponge tents that were very effective from a piece of sponge wet in an antiseptic fluid, wrapped into a cone shape with a thread and trimmed down smooth with a sharp knife when dry. I have been about as successful in preventing miscarriage with a decoction made on the spot from the bark of the root of the black haw (*Viburnum Prunifolium*), as from the choicest fluid extracts of Parke, Davis & Co., and last summer, right here in sight of the State Capitol, in a case of uterine inertia, I used with fine success a decoction of cotton plant root (*Gossypinn Herbaceum*), made from cotton growing in the field around the house.

When the tube came it was quickly and easily introduced, and the patient was so comfortable with it that, with the exception of waking at intervals to drink milk or water, he slept well until morning, and at daylight his condition was very satisfactory. He continued to improve, his greatest trouble coming from his coughing up a tough, stringy mucus or membrane.

At the end of a week he was getting along so well I removed the tube, as it

was causing some irritation and slight hemorrhage when he coughed, and I believe Trousseau lays down the general rule that the "sooner the tube is removed the better will be the result." After removal of the tube the opening healed rapidly, patient's appetite returned, he could whistle and sing; the most unfavorable symptom remaining was his breathing at night, which was rough, heavy and noisy, though in spite of that, he seemed in a fair way to go on to complete recovery.

Exactly three weeks from the removal of the tube, one month from the time of insertion, he had another attack of croup and died in a few hours.

During the time the tube was in place the wound was dressed with iodoform and the atmosphere kept moist with steam.

This patient was a bad subject and the operation was extremely slow and tedious. He had a short, thick, fat neck, in which the trachea lay very deep, and we encountered excessive hemorrhage from the very first incision. We cut into a perfect net-work of blood-vessels, and were compelled to ligate two small arteries, and at every step the blood welled up so profusely and alarmingly, it was impossible to proceed until it was controlled. Though we operated as high up as possible, I think we cut through the upper part of the thyroid body, and the bleeding came principally from vessels that ramify its structures. After reaching the windpipe, notwithstanding the bad condition of the patient, for once or twice we thought him dead, we waited until the hemorrhage was staunched before making an opening, and, with all respect to those surgeons who talk about cutting boldly down into the trachea through a pool of blood, I would prefer, in view of the important vital structures that are in such close

relation to it, to know that my knife was penetrating the windpipe and nowhere else, to say nothing of danger from blood being poured into the bronchial tubes.

Though both of these patients died, the result of the operations was not altogether discouraging, for had it been performed earlier in the first case, I am

reasonably sure it would have been a success, while in the second case it certainly added one month to the life of the patient, and death was due to what seemed an independent, second attack, coming on three weeks after the removal of the tube, and after the wound had entirely and perfectly healed.

AN UNUSUAL CASE.

BY D. A. STANTON, M.D., High Point, N. C.

On February 25th, 1894, I was called in consultation with Dr. J. W. Burton to see an infant born at 6 p. m. the day before.

The mother was a stout lady, 26 years old. She had given birth to two children two and four years previously, both stout and well-developed.

This last one was at full term, and presented but one unusual feature, viz: from one inch above the pubic bone to one inch above the umbilicus the abdomen was open directly central and straight, as if done by the surgeon's knife.

The stomach, bladder and bowels were all outside the abdominal cavity and were abnormally developed—the bowels were twice their normal size and twisted in appearance like small cotton rope doubled many times on itself. Dr. Burton replaced the stomach and bladder immediately after delivery, but could not replace the bowels. On examination with the view of enlarging the opening, replacing the intestines and closing the opening, I found the abdominal cavity almost completely filled with a redundancy of tissue, which of course pre-

vented a reposition of the organs. The abdominal walls were abnormally thickened, showing that the bowels had developed outside the cavity.

At the time of the consultation, twenty-four hours after the birth of the child, it was in a dying condition, and two hours later was dead.

Why such a malformation should have been exhibited in this child after its mother had given birth to two normal children, is unaccounted for. The old granny, however, gave as the reason that, when she (the mother) was one month gone, she dressed a young rabbit, and on opening its belly got such an impression that it was transmitted to the baby and caused the same condition to that seen in the rabbit.

Dr. S. B. Stealey (*Times and Register*) recommends the leaves of the chestnut made into a strong tea as an application in poisoning by ivy or rhus. The application should be made every 3 or 4 hours, recent cases being relieved in 24 hours. Cases of longer standing require more time, but the itching and heat are relieved at once.

Clinical Lecture.

GRANULAR ENDOMETRITIS—MENORRHAGIA FROM FUNGUS ENDOMETRITIS—DYSMENORRHOEA DUE TO ANTEFLEXION.

A Clinical Lecture delivered at the West Side German Clinic, New York, by
Dr. AUGUSTIN H. GOELET.

The first case I show you to-day is one of granular endometritis, which gives the following history :

Mrs. McC., aged 20 years, married 3 years, had one child 18 months ago, but has not been pregnant since. She complains of backache, some pelvic pain, has a profuse leucorrhœa and is constipated.

On examination, we find the uterus occupying a position with the fundus, not completely retroverted, but lying backwards towards the sacrum, both ovaries slightly prolapsed, especially the left, though they are not particularly sensitive to pressure. There is a slight laceration of the cervix and the lips feel irregular, as if the surface was granular. The uterine body is soft. Examination with the speculum shows that there is a rather abundant leucorrhœa, muco-purulent in character, and there is a granular endocervicitis, which extends up into the cavity of the uterus. This may be treated in one of two ways according to modern views: either by dilatation, curettage and drainage, or by cupric electrolysis.

The first method would involve the use of an anæsthetic and necessitate confinement to bed for several days. As there is no appreciable disease of the appendages to contra-indicate, I shall adopt the latter method, cupric electrolysis, because the patient can be treated here in the clinic and pursue her ordinary vocation. This method consists in

using an electrode of copper within the uterus with the positive pole of the galvanic current, which results in the liberation of an astringent salt, the oxy-chloride of copper. In addition to its being deposited upon the mucous membrane of the uterine cavity, as the result of the cataphoric action of the current, it is driven into the tissues some distance beneath the surface, thus penetrating the diseased glands. The advantage of this form of medication is readily appreciated.

If this application is made when the cervical canal is not patulous, uterine colic is extremely liable to supervene, and is due, I believe, to the action of the astringent upon the canal in preventing free drainage from the uterine cavity. As a precaution against the occurrence of this disagreeable feature, which so often follows intra-uterine applications of astringent solutions, I will first gently dilate this canal with the steel dilator, and, in order to remove the secretion from the mucous membrane, I will use the negative pole for a few minutes first. You see that the secretion is thus rendered thinner and the canal is made free of secretion, so that the electrode can come directly in contact with the diseased surface. Now we will change to the positive pole, turn on a current of 30 m. and continue it for ten minutes. When the attempt is made to remove the electrode you see that it has become adherent, but it may be detached by a

gentle rotary motion. In some instances, however, it is necessary to reverse the polarity, using the negative pole for a few minutes in order to loosen and detach the electrode. You see the surface of the metal has been acted upon, and it is covered with an apple green salt, which is readily wiped off. The electrode, after being washed, must be rubbed with emery cloth, so it will present a bright, clean surface for the next application.

Into the vagina is now inserted a loose wad of iodoform gauze, to which a string has been attached. This is removed by the patient in 24 hours. She is ordered to report in three days, but the application is repeated only at the end of a week. Some cases are completely cured by two or three of such applications, but some require more. When the condition shows improvement the strength of the current is reduced, and it is continued for only five minutes.

Case 2.—The next patient I show you, Mrs. M., is 26 years old. She has been married 8 years and has had one child and three miscarriages, the last seven months ago.

She complains of backache, severe pelvic pain, especially on the left side, radiating down the thigh, and a profuse leucorrhœa which is sometimes streaked with blood. Her menstruation is profuse, lasting for ten and twelve days at a time, and the interval is only two weeks.

She says she was curetted after each miscarriage, but has not been well since the last. She presented herself on the last clinic day, and was so extremely sensitive to digital examination that it was with difficulty that an accurate diagnosis of the condition of the appendages could be made. Bipolar faradization was administered, and she experienced complete relief from her pain

for the remainder of the day, and, as you have heard her say, though the pain has returned, it is nothing compared with that she experienced before the application was made.

This patient has a fungous endometritis, and in this case, when the local condition is somewhat better, that is, when the pain has been entirely relieved, I shall dilate under an anæsthetic and curette the uterine cavity. We will then have an opportunity of verifying the diagnosis, and ascertaining positively if there is any disease of the appendages.

Case 3.—The next patient, Mrs. Z., is 23 years old, has been married $2\frac{1}{2}$ years, and has never been pregnant. She has suffered from dysmenorrhœa since puberty, and since her marriage she complains of pelvic pain. At first it was confined to the left side, but now it extends over the whole pelvis. She complains also of backache and leucorrhœa. You will observe on examination that she has an ante flexion which is somewhat unusual, the flexion being confined to the body of the uterus, and the cervix is elongated.

The most satisfactory treatment of these conditions is dilation under an anæsthetic and the introduction of a straight stem or hard rubber drainage-tube, which is kept in place for a week, while the patient is confined to bed. Subsequent treatment might also be necessary. This is not, however, always a convenient plan of treatment for this class of patients, and for this reason we will adopt another method, which will accomplish the same result, though it is slower, viz: dilation with the negative pole of the galvanic current. I will make this application with the patient in the lateral position, because you can better observe the technique. The dorsal position is usually preferred because it saves time, but in every instance when

this method is adopted the vagina should be irrigated with an antiseptic solution, because the electrode being introduced along the finger as a guide, without such precaution septic material might be introduced into the cavity of the uterus. When the lateral position is employed a speculum is introduced and the cervix and os cleaned by means of a pledget of absorbent cotton saturated in the antiseptic solution held in the grasp of the dressing forceps. You will observe that considerable resistance is offered to the entrance of the electrode at the point of flexion, but by depressing the handle of

the instrument towards the perineum while the current is turned on, it passes the constriction after a very few moments. It is not advisable in these cases to use more than 10 or 15 m. for four or five minutes, because cauterization is undesirable.

The applications are repeated usually twice a week. In this case we will employ vaginal bipolar faradization afterwards, to relieve the pelvic pain of which she complains, though it is not always used in these cases unless the application to the canal is followed by pain.

Selected Papers.

A NOTE ON ASEPSIS IN OBSTETRICAL PRACTICE.

BY O. A. GORDON, M.D., Brooklyn, N. Y.

It may seem to some that the subject of asepsis in obstetrical practice is so thoroughly understood that reference to it again would be superfluous, but when we consider that undoubtedly more than half the number of confinements are conducted with a total disregard of antiseptic rules, and I might add cleanliness, a short note on the subject may be excused.

When obstetricians observe these rules and make the observance of them so general that he who disregards them will be held responsible for puerperal septic fever, perhaps we shall cease to hear of cases such as came under my observation not long since.

I was called to attend a woman suffering from diphtheritic paralysis, and learned that about three weeks previous she had been confined, and after the

delivery her attendant announced that he had just come from the worst case of diphtheria he had ever seen; in a few days the infant died of diphtheria, and shortly after an older child died of the same disease; the mother developed it and also died.

While no one can say positively that these three deaths were due to carelessness on the part of the medical attendant, proper precaution on his part would have left no opportunity for censure.

Would any sane man go direct from a case of diphtheria, scarlet fever, or other contagious disease to the lying-in chamber of his wife? I think not. Then why should he not use the same precaution in visiting one of his patients?

I am aware that many intelligent practitioners wholly disregard antiseptic rules, and excuse themselves by saying

they have attended a very large number of confinements and never had any serious trouble, forgetting the fact that trouble does come from just such carelessness. A man might as well claim the battle-field was not dangerous ground because he had frequently been there and not been wounded.

I am afraid they fail to recognize the source of contagion when they have puerperal septic fever.

A woman who is in a physiological condition has a right to expect immunity from septic poison in her confinement, and I believe it is the general opinion of medical men that contamination in such a case is due to carelessness on the part of some one of her attendants.

The physician may be ever so careful and yet have his patient exposed to the greatest danger by a careless nurse.

We have but to compare the records of a few years ago with those of the present time to convince any unprejudiced mind that asepsis has done much to lessen puerperal fever, and that many lives are now spared that were formerly sacrificed. These records speak for themselves and admit of only one conclusion, but there is still room for improvement.

There is no doubt in my mind that many cases of endometritis, salpingitis, hydrosalpinx and pyosalpinx, ovaritis and peri-uterine inflammation owe their origin to the introduction of septic poison through the vagina during confinement.

The following very simple method, for which I do not claim originality, is the one used in my practice, and I find that the intelligent patient fully appreciates everything that is done for her safety.

I instruct the patient to have ready two wash-bowls and a hand-brush for each, a dozen pieces of boiled cheese

cloth for wash-cloths, and the following prescription for lubricating the hand:

R.—Hydrarg. bichl. gr. j.
Glycerin ʒ ij.
M.

Also a bottle of bichloride of mercury tablets.

When labor begins have the bowel emptied by an enema and the external genitals thoroughly cleansed with soap and water. Before a digital examination the parts are bathed by the nurse with a 1-2000 bichloride of mercury solution and the hands and arms of the examiner thoroughly scrubbed with soap and hot water, rinsed and again washed in a 1-2000 bichloride of mercury solution, the finger lubricated with the antiseptic glycerine solution, the hand to be immersed in the bichloride solution before each succeeding examination, which are as few as possible. At the close of the third stage the external genitals are cleansed by the nurse (whose hands have been rendered aseptic) with an antiseptic solution, and a napkin applied, which has been wrung out of a bichloride of mercury solution and dried.

Should catheterization become necessary, the same antiseptic precautions are observed. No douches are used after normal labor. In instrumental cases the instruments are first immersed in boiling water and then in a 5 p. c. carbolic acid solution. After delivery a hot carbolized douche is administered.

DISCUSSION.

Dr. J. L. Kortright: I wish to commend the paper and thank the Doctor for his very clear and simple technique. I would say that I pursue a somewhat similar course, though it is not always possible to carry it out for the reason that a great many nurses pride themselves on their ability to examine patients and tell whether they are in labor

or not, and many of our patients have already been examined before we are called in, and inquiry very often elicits that fact when it is not suspected. I think many cases of septic poisoning occur in that way.

Some time ago I had occasion to look over the death-rate of cases of septicæmia in Brooklyn. I took a single month, and in the course of studying the results of the midwifery of midwives compared with the results of the midwifery of doctors, I found in June a year ago there were 18 women died in this city of puerperal diseases, of which 6 died of causes non-septic, such as uræmic convulsions, ruptures of the uterus, etc. Of the twelve cases reported by physicians, I addressed letters and received replies from nearly all of them, and in only two of these cases had a midwife been in attendance at all. The lesson is this: that a great many very dirty women may be very free from pyogenic bacteria, and a great many very clean men may have enough streptococci on their fingers to give a woman septicæmia.

Dr. Chase: Dr. Gordon's admirable paper opens up an extensive topic, and one which is of paramount interest to all practitioners of obstetrics. I presume in the circle of our own Society, that the practice of every individual member is such that it does not often happen that we have occasion to suspect ourselves of carrying poison to our patients, and yet the truth remains as mentioned in the paper, that there is an amount of carelessness which, in view of the well-established facts connected with puerperal septicæmia, is alarming and painful to the last degree. During a discussion which took place at the time of the meeting of the American Gynæcological Society in Brooklyn a year ago, a gentleman, discussing a

paper on pelvic surgery, remarked that it made a great deal more difference what the surgeon put into the abdomen than what he took out, and the same rule applies to the practice of obstetrics in this way, that the risk of puerperal septicæmia is vastly more from the poisons introduced into the vagina from the hands of the obstetrician than from any other external cause.

I would make two classes of typical septic troubles, because all cases of fever following confinement are not septic in their nature; but of those which are, it would be proper to make two distinctions—those which arise from within the patient and those which arise from without the patient. I assume that normal labor is a physiological process in every particular, and it is only when it is interfered with from some outside cause that sepsis ensues. But there is an exception—when patients are themselves diseased, in whom the reproductive tract is already infected with pus or connected with other cavities, or forms of malignant disease are in such proximity that sepsis is unavoidable; but when we except these cases, I have no doubt that in the vast majority of cases the poison is introduced from without from the hands of the obstetrician.

The history of septicæmia which occurs in the lying-in hospital (in which our President has had a large experience and can speak with authority) would lead us to believe that there are conditions in these hospitals in which the air is so contaminated with germs that it is impossible, perhaps, even with the utmost antiseptic and aseptic precautions, to escape the dangers of infection.

There is quite a difference of opinion to-day regarding just the exact measures and to what extent they should be carried for the prevention of puerperal septic-

cæmia, but I am inclined to believe the rules laid down by Dr. Gordon in a normal patient are all that is required. One of the cases he alluded to I think I saw later on. Regarding the origin of the sepsis I know nothing, but the facts of the case were very painful.

I do not know how we are going to reach the great mass of medical practitioners and impress on them the importance of asepsis instead of antiseptis. I suppose it will become more appreciated with the growth of our science, and gradually it will dawn on all practitioners of obstetrics that there is a responsibility which they cannot escape and to which they should be held to strict accountability, unless they take such precautions as will prevent on their part the infection of their patients.

I do believe that there is a better appreciation of the dangers of septicæmia and an absence of it where carefulness is exhibited, and I believe and trust that this paper of Dr. Gordon's, read as it will be widely—and it is not so long and bulky a paper as to tire a man out to read it—will be one more of those influences which finally will bring the medical profession to a point where they will exercise the proper precaution for the prevention of preventable disease.

Dr. Jewett: Certainly it is a lamentable state of things that the general profession do not take more interest in its prevention. It is well known that the results obtained in hospitals show less than one-half of 1 p. c. of deaths. One of the best institutions in New York has a record of 3,000 consecutive cases of labor, with only one case of sepsis. In the Preston Retreat at Philadelphia there has been no death from sepsis in seven years, and in the Dresden Clinic the showing is nearly as good, yet the death-rate in general private practice continues about the same as in pre-

antiseptic times—about 1 p. c. And yet, too, in family practice, as a rule, it is much easier to prevent sepsis than in hospitals.

The experience in hospitals is obtained at the cost of a great deal of pains and care for the reasons that Dr. Chase has suggested, for certainly the patients there are exposed to great dangers without these precautions. The dust of a hospital has been proven over and over again to be a dangerous source of infection. When it floats in the air wounds may be infected by it, as may instruments and the obstetrician's hands. It is not, of course, the air itself, but the dust-laden germs in the air, that may carry infection.

A word with regard to the propriety of attending a confinement after exposure to a contagious case. The doctor's hands are frequently brought in contact with materials well known to be possible sources of contagion, and it is a question what we ought to do after such exposures. My belief is that the physician is justified in going directly from an infectious case to a confinement. I have done it myself repeatedly. I have conducted a prolonged labor after such exposure, delivered with forceps, and sutured the perineum. Unwillingness to do this is a confession of lack of faith in antiseptics. If our antiseptic methods are to be relied on, we can be clean within an hour after a poisonous contact. It is true, reliable experiments have shown that the mercurial salts fail to sterilize the hands in a large proportion of cases. By prolonged scrubbing with soap and hot water and the final use of the permanganate method, however, the hands can be made sterile to culture tests. The doctor's clothing, too, must be clean. But this is not all that can be done for the protection of the patient.

It is perfectly possible to conduct a simple labor without actual contact with the birth canal. Internal examinations may be wholly avoided, and in case of being compelled, as you will be, of course, usually, to use some measures to regulate the expulsion of the head, that can be done through the intervention of a towel soaked in one of the mercurial solutions. In this manner you can feel as sure of not infecting the patient as though you had not been within miles of her. The possibility of conducting a simple labor without examining at all per vaginam is a matter of importance. After a little practice it is perfectly possible to learn nearly all or quite all that we need to know by examination of the abdomen, and it is not really necessary in ordinary labors to examine internally so frequently as most of us usually do.

No matter what our previous exposure, I think we should be able to promise the obstetric patient in advance that she shall not have childbed fever, provided we can have full control of the conditions.

Dr. Kortright: Don't you think it makes a difference the class of patients we go among?

Dr. Jewett: It certainly does. There are more exposures, of course, in a certain class of cases that are uncleanly. Cleanliness of the parts involved during labor should be looked after by the patient during the last weeks of pregnancy. That sort of uncleanness exposes her more or less, the surroundings expose her, and the greater difficulty of carrying out complete asepsis exposes her. Even the nurse and the patient herself are possible sources of infection by their own fingers.

My belief is that general infection comes most frequently from the uterine cavity and very seldom from the wounds below. That may seem irrational, be-

cause any open wound, it is well known, affords an avenue through which poison may enter. But drainage from the vagina is fairly good; drainage from the uterus is not so good. The internum is much narrower than the vulva. The cavity of the uterus presents a large wound, is itself one continuous wound, and is very close to the peritoneum. Resorptive activity is greatest in the uterus. There are, therefore, many reasons why a patient is more likely to be infected from septic material in the uterus than in the vagina. So my belief is that the greater proportion of cases of puerperal septicemia originate in the uterus. Accordingly the patient is in great measure protected by avoiding any kind of manipulation that carries the hand into the uterus. There is danger here, even with the hands clean, because of the possibility of carrying septic matter from the vagina up into the uterus. Even with normal secretions in the vagina, micro-organisms, which are innocuous in that location, may take on activity if carried on up into the alkaline fluid of the uterus. The normal, acid secretions of the vagina are considered to be inimical to the pathogenic organisms.

Dr. Kortright: Have you not had more difficulty in preventing sepsis after miscarriage than after labor at term?

Dr. Jewett: I should not have said so; I should not have expected *a priori* that it would be so; the great resorptive activity, the development of the lymphatics, and the previous sodden condition of the uterus, if I may use the expression, are greater after labor than after miscarriage. As a matter of fact, my experience has been that cases of septicemia have been more frequent after labor at term than after abortion. Statistics may bear out the Doctor's views. It is a common practice to pur-

sue the expectant plan of treating abortions, and nothing could be much more dangerous than necrotic material carried in the uterus three or four days. A great majority of women treated in that way, if they do not die, suffer more or less from sepsis and its inflammatory results in the pelvic organs for a time, if not permanently. Again, I suppose criminal abortions, if included, would swell the list of deaths by sepsis.

Dr. Chase: The bacteriological question in its relation to this disease is certainly one of great interest. I would like to ask Dr. Jewett what is his personal experience with the peroxide of hydrogen as far as a personal disinfectant, and its use in utero in septic conditions.

Dr. Jewett: The clinical results with the peroxide have been very satisfactory with me. I used it last winter in a very bad case of septic uterus where there was apparently no chance of recovery. I passed a tube into the uterus and kept up a slow intermittent injection, a teaspoonful at a time, continuing it for an hour. The patient recovered, though only after a tedious sickness.

I think with regard to antiseptics and disinfectants that we make a mistake in pinning our faith to one or the other, according to what we consider clinical tests. The only really reliable tests are laboratory tests. The relative value of different disinfectants is a question for the bacteriologist, and I think Sternberg places the peroxide of hydrogen nearly at the head of the list.

Dr. Madden: My experience has been that there is more septic trouble after abortion than after delivery at full term. As I was detained and did not hear the paper, I do not know what the Doctor's points have been, and therefore I cannot discuss them.

Dr. Jewett: There is a difference between cases of abortion where interference has been practised and those in which it has not. The contents of the uterus are more likely to become septic after the finger or an instrument has been carried into the uterine cavity.

Dr. L. G. Langstaff: It might be said in support of the idea of sepsis originating in the uterine cavity (from pre-existing septic material there or in uterine appendages) that the vagina is very often exposed to contamination from filthy surroundings and yet sepsis does not follow. In some tenement-houses everything is filthy. The hands are frequently introduced into the vagina without the use of antiseptics at all, and it must be often contaminated, but is relieved by the liquor amnii or other discharges in an outflow current while the hand is not placed in the uterus; so that in the case of septicæmia following that condition it would be presumably from the uterine cavity, since the patient so frequently escapes otherwise. There are some cases in which it would seem inevitable that sepsis would follow from vaginal exposure, and yet it does not, the invasion of the uterus being made.

Dr. Jewett: There is more protection at term, owing to irrigation with liquor amnii and the secretions than at earlier stages.

Dr. Kortright: There are two or three reasons for that. Some women can stand a great deal of septic poison without effect, and then also a good deal of that dirt may not have contained any pyogenic bacteria at all.

Dr. Jewett: Whatever the fact may be in regard to the relative frequency of sepsis in abortions and term labors, it is probably more easily prevented in abortions than in term labors.—*Brooklyn Medical Journal.*

Society Reports.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

Held in Rome, Italy, March 29, 30 and 31, and April 1, 2, 3, 4 and 5, 1894.

SECTION ON PRACTICAL MEDICINE.

The Rheumatic Nature of Chorea.—Sir Dyce Duckworth, of London, presented a communication with this title, of which the following were the conclusions: 1. Chorea is not only, as is generally believed, related to rheumatism, but is itself a variety and a manifestation of this disease. 2. Chorea is a form of cerebral rheumatism, representing one of the many extra-articular varieties of this disease. 3. Lesions may be found in the heart and in the brain, and, as far as we can say to-day, the cortical region is the part involved. 4. It is impossible to distinguish, during life or after death, any difference between the endocarditis due to rheumatism and that which is supposed to be due to chorea. 5. Shock, mental overwork, or physical emotion, are the causes ordinarily producing chorea, but these can give rise to the disease only in children who have inherited the rheumatic habit. 6. The symptoms of chorea point to the action of certain systemic poisons, and, as these have been shown to be the efficient cause of rheumatism in about 80 p. c. of all cases, so we ought to conclude that it is the efficient cause of all cases of chorea, or that at most in a small percentage the disease results from the action of some other toxic substance having a remarkable affinity to the rheumatic poison. 7. As the manifestations of rheumatism are now clinically recognized in parts of the body other than the joints, so chorea may be considered

as a variety of rheumatism specially affecting the brain.

Treatment of Hyperchlorhydria.—Dr. Cantù, of Pavia, said that he had had occasion to give duboisine as a calmative of gastro-intestinal pains, and was led thereby to a study of the physiological action of this drug upon the gastric functions. He found that it caused a marked diminution in the acidity of the stomach contents, reducing it about one-half. Analysis made by Siöquist's method showed that this decrease in acidity was due chiefly to a diminished secretion of hydrochloric acid. Duboisine would then be indicated in all gastric affections characterized by an exaggerated glandular secretion, or rather, he would say, by an increased formation of HCl. The excellent results obtained by the author from the administration of the drug in such cases was a practical confirmation of his experimental conclusions. The action of duboisine is very far superior to that of atropine. The dose of the hydrochlorate employed was 1-10 to 2-5 milligramme hypodermically, or 1-5 to 7-10 milligramme by the mouth. The action of the remedy ceased to be noted 24 hours after the administration of the last dose.

The Treatment of Empyema in Tuberculous Patients.—Dr. Charles Bäumler, of Freiburg i. Br., presented a communication with this title, of which the following were the main points insisted upon: 1. In the early stages of empyema, and

when the patient's condition before the appearance of this complication was not already hopeless, the following treatment is advised: 1. When pus micro-organisms are present, thoracotomy. 2. When these are not found, the treatment must be at first expectant. If the increasing amount of the exudate causes threatening symptoms, aspiration must be practised and repeated until the suffocative symptoms subside; then, when the general condition is good, or perhaps better than it was, the radical operation (thoracotomy) is to be performed, provided the lung is found to be still capable of expansion and not too profoundly involved in the tuberculous process. II. In empyema of long standing: 1. The treatment above sketched. 2. When cough, dyspnoea and cyanosis persist after the removal by puncture or aspiration of perhaps several hundred cubic centimetres of pus, showing a very defective expansive power of the lung, if the patient is in fair strength a radical operation must be made (thoracotomy or Bilan's operation). 3. When the power of expansion of the lung is very greatly impaired, the general condition being good, however, and in the absence of fever, we must resort to palliative measures, such as punctures repeated as may be indicated by the mechanical action of the exudation—finally, perhaps, to Bilan's siphon drainage. 4. When the general condition is bad in consequence of the pulmonary disease or of complications (amyloid degeneration, intestinal tuberculosis, etc.), palliative measures only are admissible.

Treatment of Empyema.—Dr. S. Laache, of Christiania, favors resection of the ribs in these cases, which is, he thinks, the most certain method of obtaining a cure in suppurative pleurisy. The principle of treatment, based upon as complete drainage as possible, is thereby

realized in the most perfect way, and when this thorough drainage is obtained, we may, without danger, dispense wholly or in great measure with the laborious process of washing out the thoracic cavity. In his communication the author spoke of those complications which are the most grave from a medical point of view, and more particularly of the condition of extreme debility which may follow the operation, and of sudden death, which is sometimes a result of this procedure.

The Management of Fevers and Particularly of Typhoid Fever.—Dr. Burney Yeo, of London, presented a communication with this title, of which the following were the conclusions: 1. Recently acquired knowledge as to the nature and causes of specific fevers demands a modification in the therapeutic conceptions and indications applied to their management. 2. To counteract or antagonize the pyrogenic and other poisons, secreted by micro-organisms introduced into the body from without is an essential therapeutic indication in the treatment of fevers. 3. The investigation into the existence, scope and activity of such counteracting therapeutic agents is of paramount importance to the rational treatment of fevers, and already the results of clinical observations give promise of fruitful conclusions to researches in this direction. 4. The search for direct antagonists to the poisons of specific fever is as important and probably of as great practical advantage as is that for methods of producing immunity. 5. The course and character of specific fevers can be, and have been, favorably modified and influenced by the administration of such antagonists. 6. Certain specified methods commonly adopted in the management of fevers, and especially of enteric fever, require modification and correction (*a*) in the

direction of diet and regimen, and (b) in the direction of drug treatment.

Treatment of the Typhoid State.—Dr. Juhel-Renoy, of Paris, read a paper on this subject, of which the following were the main points: All infectious diseases may assume the typhoid aspect, and when this occurs refrigerant treatment is indicated. The method of this refrigerant medication must vary according to the result which it is desired to obtain. It is vastly superior to any other procedure in all forms of infectious fever; it reduces the total mortality of typhoid fever to 7 p. c.; of typhoid erysipelas to 9 p. c.; of malignant scarlatina to 14 p. c.; of ataxo-adyynamic measles to an almost inappreciable figure. The mortality of adynamic grippal pneumonia is reduced one-half by cold baths, and small-pox, when treated in this way from the start, is much milder in its course. The ways in which cold baths bring about the disappearance of the typhoid condition are numerous, but that which seems to be the most important as well as the most constant is the urinary crisis, an indication, when it occurs, of an early cure.

Typhoid Bacilli in the Gall-bladder.—Dr. H. Chiari, of Prague, read a paper on this subject, in which he said that the systematic bacteriological examination of the contents of the gall-bladder in cases of enteric fever almost always revealed the presence of typhoid bacilli. The bacilli may increase in numbers here and induce an inflammation of the gall-bladder, and possibly there is in this fact an explanation for certain cases of relapse in typhoid fever. The bacilli gain entrance either through the blood or by direct ascent through the common bile-duct from the intestine.

Pathogenesis of Diabetes.—Dr. Nicola de Domenicis, of Naples, read a paper with this title. Ligature of the duct of

Wirsung, with complete cutting off of communication between the pancreas and the duodenum, produced diabetes, he said, just as surely as total ablation of the pancreas. The inclusion of even a third part of the pancreas in the subcutaneous connective tissue will not prevent the occurrence of diabetes in animals from whom the part of the organ remaining in the pancreas has been removed. The intestinal contents of animals from whom the pancreas has been removed, properly prepared and injected into the abdominal cavity of healthy animals, induces in them a slight and transitory glycosuria. The author concluded from the results of these experiments that pancreatic diabetes is due to the suppression of the intestinal function of the pancreas.

Pancreatic Changes in Diabetes.—Dr. David Hausemann, of Berlin, presented a communication on this subject in which he said that there was a form of diabetes occurring with, and another form without, pancreatic lesions. The pancreas may be destroyed by connective tissue or fatty overgrowth, by tumors or by calculi, and diabetes thereby result. In many such cases, however, so much of the pancreatic tissue may be preserved that no glycosuria is induced. The most frequent pancreatic lesion in diabetes is simple atrophy, and this is found in corpulent diabetic patients as well as in the emaciated, but is met with only exceptionally in other cachexiæ. The form of diabetes occurring with simple atrophy of the pancreas may be regarded as genuine pancreatic diabetes in contradistinction to the forms associated with other diseases of this gland which present more casual lesions.

A New Method of Diagnosis and Prognosis of Chronic Nephritis.—Dr. Basset, of Toulouse, said that as long ago as

1860 he had read a paper before the Medico-chirurgical Society of Toulouse, on "The Non-elimination of Odorous Substances by the Kidney, as Bearing upon the Diagnosis and Prognosis of Nephritis." Since that time he had found a new and more precise method of arriving at this end, namely, the employment of iodides and of the salts of quinine, the elimination of which by the kidneys is so rapid in the normal condition, and the comparative dosage of which may be made so exactly. The following were the conclusions of the communication: 1. The elimination of odorous substances by the kidneys is retarded, diminished, or abolished in chronic nephritis. 2. This examination of the odor of the urine is an easy and rapid method of ascertaining the functional condition of the kidneys and of determining their anatomical integrity or the reverse, and thus of arriving at a diagnosis and prognosis of Bright's disease. 3. The salts of certain substances which are ordinarily eliminated in great part and rapidly by the kidneys, such as the iodides, the bromides, the salts of quinine and the turpentine, which form with nitric acid a precipitate soluble in ether and alcohol, are very useful as furnishing in a precise manner, by the retardation or diminution of their elimination in the urine, data upon which to base a diagnosis and prognosis of the various degrees of chronic nephritis.

Percussion of the Kidneys.—Dr. Ernesto Bruschini, of Naples, read a paper in which he said that it was necessary to make an examination of the kidneys by means of percussion in all cases in which this was not rendered impossible by special grave conditions. It is not rare by so doing to discover the existence of a movable kidney which would not otherwise have been suspected, and

when the symptoms presented by the patient would have led to an entirely different diagnosis. We cannot, however, without the aid of other symptoms, establish a diagnosis of movable kidney from the mere absence of percussion dulness on one side. We must first be sure that there are no pathological conditions in the other internal organs, especially the abdominal. Above all, it is necessary to be cautious in making this diagnosis when there is a tumor of the spleen or of the liver, or when the stomach is markedly dilated.

Nephritis without Albuminuria in Specific Intoxications.—Dr. Antonino Fienga, of Naples, said that there existed cases of nephritis, as shown by the clinical and microscopical symptoms in which no albumin was to be found in the urine. Such a nephritis may be due to the introduction of a specific virus from the external genitals reaching the kidneys through the lymphatics. The disease so caused may subside after rest, the institution of a milk diet, or the administration of chloral, combined with adonis vernalis whenever the heart appears to be affected or œdema is very extensive.

Intestinal Adhesion in Middle-aged Patients.—Dr. Arthur Faenicke, of Breslau, read a paper with this title. In 60 to 70 p. c. of women between 20 and 40 years of age, who are set down as hysterical because their complaints are of an undefined character, a careful examination of all parts of the abdomen, he said, would reveal the presence of old peritoneal adhesions between different segments of the intestines. These can be discovered only by the most careful examination, made when the intestine is empty and again when it is partly full. The cause of these adhesions is, in a large majority of cases (75 p. c.), some inflammatory process originating with the internal sexual organs, and running

its course for the most part unobserved, after the subsidence of the primary affection. Of the remaining 25 p. c., about half the cases are sequelæ of perityphlitis, the balance being the result of repeated attacks of gall-stone colic with peritoneal irritation, or of gastric or intestinal tumors. The treatment consists in regulation of the diet, the securing of regular evacuations of the bowels, the promotion of absorption by means of external counter-irritation to the abdomen (blisters, etc.), and the management of the acute exacerbations by local blood-abstraction.

Glycosuria of Nasal Origin.—Dr. L. Bayer, of Brussels, reported a case of glycosuria accompanied by other trophic symptoms which was caused by nasal obstruction, and disappeared after the reëstablishment of free respiration through the nose. From this observation he came to the conclusion that an obstruction to nasal respiration may be a direct cause of glycosuria. The appearance of the glycosuria under such circumstances may be explained in part by the diminished absorption of oxygen, but especially by the resulting circulatory (asphyxic) and nervous (bulbar) troubles.

Anasarca following Retention of Urine, but without Albuminuria.—Dr. Lépine, of Lyons, said that the dropsy sometimes observed in cases of retention of urine, especially in cachectic subjects, could be satisfactorily explained by the weakened condition of the tissues in the cachectic and by the fact of the retention of a superabundant quantity of fluid in the blood. The only thing that may seem extraordinary in such cases is the absence of albuminuria. From a number of experiments made upon dogs the author had found that the urine, greatly reduced in quantity and secreted

against a counter-pressure of one metre of urine in the urethra, might be perfectly free from albumin provided this pressure were constant and not intermittent.

Bichromate of Potassium in Gastric Affections.—Dr. Thomas R. Fraser, of Edinburgh, had for many years treated cases of gastric disease with bichromate of potassium. The cases included catarrh of the stomach, chronic gastric ulcer, gastrodynia, and even dilatation and malignant disease. In the two latter some of the symptoms were occasionally relieved, and in the others the symptoms were, as a rule, entirely removed. Bichromate of potassium appears to exert its beneficial and curative influence not only by reason of its anti-fermentative action, but, even more conspicuously, in virtue of a direct analgesic effect. It is probable, also, that certain histological structures in the stomach wall are selectively modified by it. The doses employed by the author were from 1-12 to 1-6 grain, given thrice daily one or half an hour before eating.

The Comparative Situation of the Stomach in Men and Women in Diseased Conditions.—Dr. Bourget, of Luzerne, read a paper with this title, in which he said that gastric ptosis is much more frequent in women than in men. In the case of the female subject it is simple dilatation of the stomach which prevails.

The Role of Arterial Aplasia in the Renal Complications of Infectious Diseases.—Dr. Emilio Conde Flores, of Caracas, Venezuela, read a paper in which he maintained that arterial aplasia might play a very important rôle in the production of the renal complications of acute or chronic infectious disease (typhoid fever, tuberculosis, etc.).—*Medical Record.*

SOUTH CAROLINA MEDICAL ASSOCIATION—FORTY-FOURTH ANNUAL MEETING.

Held in Rock Hill, S. C., April 25th and 26th.

DR. W. H. NARDIN in the Chair.

The Forty-fourth Annual Meeting of the South Carolina Medical Association was held in Rock Hill on the 25th and 26th of April, 1894.

The meeting was opened with prayer by Rev. Alexander Sprunt, and an address of welcome by Dr. J. W. Feuel, Mayor of Rock Hill. The President responded in behalf of the Association.

The regular routine of business was instituted by the appointment of a Committee on Credentials, consisting of Drs. Nardin, Simons and Crawford.

In the absence of the Treasurer, his report was read by Dr. DeSaussure, and showed a deficiency of about \$400. Drs. Strait, Morral and Simons were appointed a committee to devise a plan for more nearly equalizing the expenses and income of the Association.

The first paper read was by Dr. W. F. Strait, chairman of the Committee on Obstetrics. His paper was entitled "Improvements in Obstetrics," and the author first called attention to recent observations in regard to the causes of nausea in pregnancy. Among the causes and one upon which much stress is laid, is pressure upon the ureters and perhaps an incarcerated uterus, that is, one which is retroverted and fixed. The pressure upon the ureters closes these canals, with a consequent damming back of the urine and resulting uræmia. In such cases medication is useless unless the pressure is removed.

He said in regard to puerperal convulsions that all were agreed as to the cause of this condition—nephritis in its various stages of development. The urine

of pregnant women should always be examined, but we are sometimes not called to a patient until she is in the height of a convulsive seizure. In such a case if labor has begun it is our first duty to deliver promptly. In convulsions coming on before labor has set in, there is diversity of opinion as to the proper course to pursue—some advising tiding over the attack with antispasmodics, while others hold to the advisability of immediate induction of labor. The latter appears more rational. While pilocarpin, by hypodermic injection, is regarded as a very useful agent by some, on account of its action on the skin, its use is opposed by others as being too depressing to the heart's action. Calomel is universally advised as the best eliminator we possess, and should be given in large doses. He considered morphine as the most powerful of all remedies in overcoming the condition. He thought the failure of some to obtain good results from its use, they claiming that in many cases it acted as an excitant, was due to the fact that the remedy was not used in large enough doses. It should be administered hypodermatically in doses of 1 grain repeated at intervals of two hours if the condition requires it. Used in this way he has had universally good results from it.

Puerperal fever, he asserted, is the direct result of a disregard of asepsis. It should be treated by prophylaxis, that is, by such a proper use of antiseptics as to prevent its occurrence. There has been some change in the after-treatment of the parturient woman. The four or

five post-partem douches with antiseptic solutions are no longer advised, being rather dangerous than otherwise, especially when left to the ordinary nurse to carry out. Most practitioners are satisfied to dress the parturient parts as other wounds, with an antiseptic dressing. He made a brief allusion to symphyseotomy, stating that it had now been established as a useful and safe operation for certain special cases, and predicted a bright future for it.

Dr. Evans could not accept the statement that there was a condition of albuminuria in each case of eclampsia. If this were the undoubted cause, why do we not have similar attacks in the many cases of Bright's disease which we encounter.

Dr. DeSaussure called attention to the fact that autopsies performed on women in the great Vienna hospitals, in whom the convulsions were so grievous as to cause death, showed many cases in which there was not the faintest evidence of disease of the kidneys. He also objected to the theory which placed pressure of the gravid uterus as a cause of the nausea of pregnancy. If such were the cause, why did not the same result occur in the very numerous cases of fibroid tumors of the uterus which come under our notice, these tumors weighing often as much as 60 pounds. He considered it, rather, as one of those mysterious reflexes, acting through the uterine nerves. The condition frequently arose within a few days after the occurrence of pregnancy, and in these cases could certainly not be laid to this cause. The author explained that he had stated in the paper that pressure by an *incarcerated* uterus was a cause, not simple pressure from a gravid uterus in its normal position.

Dr. T. G. Simons coincided with the views of Dr. DeSaussure, and cited the

frequent instances in which the nausea was relieved by applications to the cervix or a simple dilatation of the canal.

Dr. Stevenson opposed the administration of morphine in such large doses, as being dangerous. He had known death to result from smaller doses. Several members responded to his objection by citing cases in which they had used even larger doses. Notably among these was a case reported by Dr. DeSaussure in which he administered 1 grain each hour for four consecutive hours, with perfect recovery of the mother. The child was so thoroughly narcotized it was three hours before he was assured of its safety.

Dr. Willcox was very favorable to the practice of venesection, and thought it would often obviate the necessity for such large doses of narcotics.

Dr. Mayer alluded to the fact that in the Vienna hospitals, where the condition of the urine was closely watched, and albuminuria treated by hot packs, there had been a considerable lessening in the number of cases of eclampsia. He thought if this treatment is so successful in preventing eclampsia, the uræmic condition must be, in some degree, certainly, a causative factor. In the giving of narcotics the child has a right to some consideration. He has seen a child thoroughly narcotized.

Dr. Strait, in closing the discussion, stated that while Dr. Willcox had had such good results by his routine method of bleeding, he had entirely refrained from bleeding, and had equally as good results, having not yet lost a case.

The next paper read was by Dr. Jas. Evans, chairman of the Committee on Practice of Medicine.

The paper was an interesting and exhaustive review of recent investigations in regard to the pathology and treat-

ment of some of the more obscure diseases.

Dr. O. B. Mayer then read his report as chairman of the Committee on Surgery. He devoted his paper especially to the great advance that has lately been made in two surgical procedures—amputation at the hip-joint and intestinal anastomosis. He described Wyeth's method of bloodless amputation at the hip-joint with the use of transfixion needles and the circular elastic constrictor. While in former years the mortality accompanying this operation was exceedingly high, in military work reaching 98 p. c., and the operation was justifiable only at the hands of the most able and expert surgeons, the simple method for arresting hemorrhage devised by Dr. Wyeth had made the operation so safe that any one who was at all accustomed to the use of the knife might dare to undertake it, with every reasonable hope of success. For intestinal anastomosis, either lateral or end to end, he considered the Murphy button as the most practical and useful of all the appliances which have been presented having for their object keeping the peritoneal surfaces in apposition and the lumen of the gut patulous. He exhibited a specimen button and demonstrated its application with a segment of pig's intestine.

Dr. Strait called attention to the fact that objection was made to the Murphy button because it was a source of danger within the intestine. In refutation of this charge and to show the wonderful power the bowels have of expelling foreign bodies and protecting themselves from injuries, he reported a case which occurred in his practice of a child who swallowed a safety-pin which was open and which nevertheless passed through the entire canal without the slightest inconvenience.

Dr. Nardin added to this a case in which a child swallowed one of the lead seals used for sealing box-cars. It was about the size of a dime, but thicker, and the cut ends of the wire to which it had been attached were projecting on either side about half an inch. The seal passed through the entire alimentary canal without trouble or inconvenience.

The next paper read was by Dr. De-Saussure, and was a plea for the protection of the health of girls about the age of puberty. The family physician should interest himself in this matter, and when a girl is approaching this stage of her existence he should warn the parents of the vital importance of instructing the girl as to what she is to expect and as to the proper care of herself during these periods. He referred to the habit girls have of placing their feet in cold water and using other means in trying to "stop the nasty thing," that they may attend a dance or go on some pleasure excursion which happens at the time of her menstruation. He also deprecated very strongly the reading by girls of the exciting, trashy novels, which certainly tend to an unhealthful stimulation of the sexual organs with resulting chronic congestion.

THROAT 75. LUNGS.

Dr. Porcher read a paper with the above title and related cases in proof of his claim that the throat is often the cause of a chronic cough, which does not yield to ordinary treatment, and that proper applications to the pharynx often bring about a cure in these cases and change a life of depression and fear to one of cheerfulness and health.

Dr. Parker said the ease with which the throat, in its greater extent, could be examined, should leave no excuse for

a physician not being able to exclude any irritation in that location in determining the cause of a chronic cough. He alluded to the frequency with which

syphilis manifests itself in the throat, and the importance of early and proper treatment.

(To be continued.)

Abstracts.

A CASE OF KOCHER'S RADICAL MODIFICATION OF THE ALEXANDER ALIQUÉ OPERATION.—In the *Archiv. für Gynäkologie*, 1893, is an account by Lanz of Kocher's modification of this operation, with a report of successful cases. The modifications introduced by Kocher are the splitting up of the inguinal canal so as to isolate the round ligament with ease, the drawing upon the round ligaments in the directions of the anterior superior iliac spines, and their fixation upon the aponeuroses of the external oblique muscles whilst being drawn upon. Having a case of prolapse with retroflexion, which was unrelieved by mechanical or medicinal means, I performed Kocher's modified operation as follows: Taking the left side first, an incision was made from just above and external to the pubic spine to about three-quarters of an inch above and internal to the anterior superior iliac spine, running parallel to Poupart's ligament. The external inguinal ring was felt as a yielding space and seen to be filled with a plug of fatty areolar tissue. A director was passed into the inguinal canal and the anterior wall slit up with a scalpel. The round ligament lay exposed with the branch of the genito-crural nerve. The ligament was then picked up with forceps, divided distally, and separated up to the internal inguinal ring. Exactly the same steps were performed on the right side. The second

assistant now passed a uterine sound and held the uterus forwards. The two ligaments were then drawn upon in the direction of the iliac spines until firm resistance was felt, and the peritoneum was pulled on each as a knuckle three-quarters of an inch long. These knuckles were separated and pushed back. The round ligaments were stitched upon the oblique aponeuroses with continuous silk sutures whilst the given tension was being maintained, and the inguinal canal was closed as after operation for radical cure of hernia. The skin was then sutured with silkworm gut sutures. What at once strikes the operator is the great possibility of hernia following the operation. Another impression is that the round ligaments are very easy to find and can now be treated in any way required, and a following thought is forced upon one that by methods which do not open the inguinal canal the round ligaments cannot possibly be isolated and drawn out to the necessary extent. As to the formation of hernia afterwards I cannot yet speak, but it appears to me that if the inguinal canal be stitched with care the danger should be much less than after abdominal section. What, however, more than any other element, is felt by the operator is that he is acting on one of the modern root-principles of surgery, in that he can see everything, and is not working in the dark or trusting in the varying conditions of the

round ligaments and their attachments. The after-course of the case was as follows: The patient was perfectly comfortable from the first, and her temperature was never above 99° F. Although the left incision did not heal at once owing to two switch abscesses, yet, five weeks after the operation, both incisions were quite soundly healed. The uterus was very elevated, the cervix being only just reachable by the finger per vaginam. I send the account simply to make known the method and to draw attention to its directness and simplicity. Of its value my case will be no test until a year or more has passed.—*Lancet*.

SULPHUR IN SURGERY.—(Lane—*The Lancet*). In a paper on this subject, in 1893, the following conclusions were summarized: (1) Sulphur applied locally appears to exert no deleterious effect on the health of the individual; (2) it gives rise to products which are powerfully caustic in their action. Therefore it must be used in small quantities and with discretion; (3) it destroys all organisms whether free in a space or growing in the surrounding tissues; (4) it acts much more powerfully upon recently incised structures than upon granulating surfaces; (5) its action is rendered more uniform and general and less violent by mixing it with glycerine; and (6) if used in any quantity, the drug must be removed within a day or two and irrigation subsequently adopted. "Since writing that paper I have used sulphur very largely, not only in tuberculous conditions, but in other infective processes, and with the most satisfactory results. The rule I adopt in the treatment of extensive tuberculous disease with much destruction of bone is, if there is a well-defined cavity in the bone, to pack it with iodoform in the manner

described in a previous paper, but if there be no such suitable space, and if it be impossible to remove with certainty all tuberculous material, I place an emulsion of glycerine and sulphur in the cavity for twenty-four hours and then irrigate daily for a time with dilute perchloride of mercury lotion or with a sterile normal saline solution. In the case of recent foul wounds with extensive laceration and bruising, its action is perhaps seen to best advantage. The following notes of such a case illustrate this very well: A man aged 30 had been cleaning a window, when he fell forty feet. His forearm was transfixed on a spike of the area railings, and he was suspended upon it. The skin and muscles of the forearm were extensively lacerated along the whole of its length, and portions of his coat, which was very dirty, were embedded amongst the pulped muscles. Such portions of the muscles as were very much mashed and dirtied were removed. The ulnar artery was uninjured. The damage to the soft parts was so extensive, and the fouling so considerable, that I believed that, however thoroughly the parts were washed with germicidal lotions alone, amputation would become necessary at no distant date. Therefore, after cutting away some parts, cleaning up others, and removing any foreign materials present, gauze, saturated with an emulsion of sulphur and glycerine, was introduced everywhere in and between the lacerated tissues. At the end of 24 hours this was removed, when the wound was found to smell strongly of sulphuretted hydrogen, and the tissues were covered with a soft black slough. Irrigation with dilute perchloride of mercury solution was used daily, and the intervals in and between the lacerated muscles packed with cyanide gauze. The slough soon separated, leaving a

healthy granulating surface. The highest temperature recorded was 100.6° F. in the evening following the operation. I have little or no doubt in my mind that such a result could not have been obtained by the germicides in general use. In the case of lupus no application, in my experience, is so perfectly satisfactory in its results as sulphur, whether employed in its most active form as the powder, or more gradually, in the form of an emulsion or an ointment. In every case in which I have used it, cure has rapidly resulted, with practically no destruction of tissue other than lupoid. In the case of cancerous or sarcomatous ulceration, the destruction of the soft parts can be regulated and determined very accurately. Unlike the escharotics in common use it has practically no effect on healthy cutaneous or mucous surfaces, but requires the action of a granulating or raw surface to determine the formation of sulphurous and sulphuric acids, which are apparently the agents which influence the vitality of the organisms and tissues with which they come in contact. I have also found sulphur most useful in the foul ulcerative stomatitis which is so common among the children of the poor, and which resists so obstinately such local treatment as is usually adopted. In such cases, if gauze or wool be dusted abundantly with the fine-powdered drug, and this be retained in firm contact with the foul ulcerated surface for an hour or two, sufficient destruction results to clear the surface of its infective organisms, and it then heals rapidly. Should one application not produce a sufficient result, a second or even more may be required, the number depending on the extent and locality of the ulceration, the facility with which the plug can be retained in position, etc. Also in the foul impetiginous ulcers in children, the applica-

tion of sulphur is similarly most effectual in the destruction of the micro-organisms producing these conditions. I might multiply very largely similar examples of the good results that may be obtained by the action of sulphur used in this manner, but I think that I have given enough to induce other surgeons to give it a good trial. Sulphur, like iodoform, becomes active as a germicide, and is very considerably more powerful in its action than iodoform only when in immediate contact with a raw surface, the living tissues causing it to form certain combinations with hydrogen and oxygen.

GAVAGE (FORCED FEEDING) IN THE TREATMENT OF ACUTE DISEASES OF INFANCY AND CHILDHOOD.—Dr. L. Emmett Holt (*Medical Record*) contributes a very interesting paper on this subject. He describes the procedure as easy, simple and free from danger. As compared with holding the nose, and forcing the child to swallow, any one who has seen the two done will have little trouble in deciding which is easier: "The technique of gavage is very simple. The apparatus usually used for stomach-washing is all that is required, viz: a funnel, eighteen inches of rubber tubing, a soft rubber catheter, and a few inches of glass tubing for connection. The catheter should have a double eye. No. 14, American scale, is the best size for infants under six months, and about No. 17 for older children. A four-ounce funnel is large enough for infants, while for older children it is an advantage to use one holding six or eight ounces. The child is placed upon the back in its crib, and the head steadied by an assistant. The tongue is depressed with the left forefinger, and the catheter, previously oiled, is pushed rapidly down the pharynx until nine or ten inches have

passed the lips. The funnel is now raised high in the air for a few moments to allow gas from the stomach to escape. The food is poured into the funnel and rapidly runs into stomach. As the last of the food leaves the funnel the catheter is tightly pinched and quickly withdrawn. This last step is an important one in order to prevent trickling of food in the pharynx, which may provoke vomiting. Sometimes the food remains in the funnel, and will not run into the stomach. This is not ordinarily from blocking of the eye of the catheter by mucus, but from gas in the tube. In a few moments this generally rises to the surface of the liquid, and then the food flows readily. If regurgitation of the food takes place it is generally immediately after withdrawing the tube. In many cases it may be prevented by allowing the gas to escape from the stomach before putting the food in, and in others by holding the jaws separated for a few moments after the catheter has been withdrawn. In young infants no gag is required, but in older children one is quite necessary, since otherwise they may bite the catheter in two. Where a gag is needed the ordinary one accompanying intubation sets will answer the purpose. Two assistants are usually required to feed an older child. It is important that the child should be held flat upon its back. The time consumed in feeding by gavage is from ten to thirty seconds. In infants this is very easily done. In the institutions referred to all the nurses have been taught to do it, and they learn with very little experience to do it very quickly."

OLIVE OIL IN THE TREATMENT OF NEPHRITIC COLIC.—Aussilloux (*Bulletin Gener. de Therapeutique*) reports two cases of nephritic colic, occurring in elderly persons, in which the administration of

olive oil produced most excellent results. The action of the oil in controlling the crises of the disorder was undoubted. How the drug acts, whether directly upon the calculi themselves or owing to its cholagogue or purgative properties, was not determined. The action is apparently a reflex one, though even this cannot be accurately demonstrated clinically or experimentally. The oil stops the spasms of the ureters, as does a hypodermic injection of morphine, with the important difference that in the case of the latter remedy the relief produced is only temporary, whereas in the case of the oil it is definite. The oil seems to act in nephritic colic precisely as it does in hepatic colic, about which many observations have already been published. Regarding the administration of the oil, some practitioners prefer to give it in single doses of from 150 to 400 grammes or more. The author, however, recommends small quantities at a time, repeated as required. He refers to a singular method of administering the medicament in certain parts of France—that is, in garlic broth; this is prepared by boiling a few cloves of garlic in water with a little salt. The broth is then poured over slices of bread soaked in the oil, constituting in this manner garlic soup. The author leaves out the bread and increases the amount of the oil from two to four tablespoonfuls. Patients take this beverage more readily than the pure oil, and it has been found to be just as efficacious. The dose may be repeated in the course of a few hours, if necessary.—*Medical and Surgical Reporter*.

ANAL FISSURE AND PAINFUL EROSIONS OF THIS REGION IN INFANTS AND YOUNG CHILDREN.—Anal fissure and painful erosions occurred often in young children. The history frequently showed

that up to a certain time the bowels acted regularly; then constipation became the rule, and when the bowels moved there was pain. The fear of pain caused the child to put off nature's demand as long as possible. Anal fissures may be above or below the ring. On exposing the parts the fissures would be seen filled with feces, the area around often denuded. It was the writer's conviction, however, that more frequently there was erosion alone, which was situated above the ring, and could only be seen after surgical dilatation under anesthesia. Where there was persistent constipation which failed to yield to dietetic regulation which was accompanied by painful stools, the diagnosis of fissure or painful erosions was justified, and called for treatment which would not only cure the lesion, but also the constipation. The treatment advised was first inducing chloroform anesthesia, then stretching the anus and applying the Paquelin cautery to the eroded surface. A tampon of cotton was introduced, and after 24 hours removed. Five cases had been treated in this way with signal success, curing both the constipation and pain. In the treatment of mild constipation a good fluid extract of cascara sagrada was the most unobnoxious drug.—Koplik, *Archives of Pediatrics*.—*Canadian Practitioner*.

THE BACTERIUM COLI COMMUNE A CAUSE OF APPENDICITIS.—(*Läkareföreläsningar för handläggare*.) G. Ekehorn gives the following summary of his investigations. The primary changes in appendicitis—the catarrh and subsequent thickening of the mucous membrane and of the walls of the appendix—are the same in degree and frequency, whether fecal matter be present or not; they are not, therefore, dependent upon the latter, and we cannot with reason

infer that the presence or absence of fecal matter has any causal relation with them from our present knowledge. If we admit that virulent bacteria may, after gaining entrance within the processus vermiformis, induce these primary changes and cause a catarrhal inflammation with intense swelling, edema and infiltration of the appendical wall, it is strictly in accordance with our experience of their behavior in other parts of the human organism. The correctness of this supposition, which may in the near future be verified by experimental evidence, has not as yet been proven. In an appendix thus pathologically affected fecal matter may, through its presence, acquire grave secondary importance as touching the course of the appendicitis, partly through its pressure upon the edematous, infiltrated wall, in this way becoming a secondary cause of ulceration, gangrene and perforation, and partly through diminishing the lumen of the appendix. In consequence of such swelling of the appendical wall, a narrowing is produced at each transverse flexure of the appendix. The stenosis obtains a secondary significance, analogous to that of the fecal matter. The author seldom found pathogenic bacteria, in great numbers, in the colon. The processus vermiformis may be regarded as predisposed to infection. The bacteria easily find in it an appropriate medium for their development and for the exercise of their pathogenic functions. As the various pathogenic bacteria differ as to their effects, the appendicitis will present itself under different forms. It is evident that tuberculosis and actinomycosis of the appendix, not infrequently observed, differ entirely from ordinary appendicitis. The pathogenic bacterium most frequently found in the colon is the most common cause of appendi-

citis. This is the bacterium coli commune (Escherich). This bacterium may be pathogenic for man and become virulent to a high degree; it is pathogenic for guinea-pigs and other animals used for experimental purposes. The bacteria coli commune was present in pure culture in the contents of the processus vermiformis, in a chronic catarrhal appendicitis which was in the intermediate stage of calm, in an exacerbation of a chronic catarrhal appendicitis and in an acute gangrenous appendicitis. It was observed, always in pure culture, in the peritoneal exudation after a perforating appendicitis, and in the pus from an intraperitoneal pelvic abscess after perforating appendicitis. The bacteria of the colon from a chronic catarrhal appendicitis, that was, for the time being, in a state of calm, appeared to be less virulent than the bacteria from a developing or an acute appendicitis, although they were very highly virulent for guinea-pigs, which is analogous to that which has been found true in regard to the bacterium coli in normal feces, on the one hand, and the alvine discharges of diarrhœa and enteritis, on the other. This, to the author, seems to prove, with the highest probability, that it has had an important rôle to act, and has not been present as a passive element. According to the author, it may be presumed, almost to a certainty, that bacteria are the principal disturbing factors in the acute stage of appendicitis, the fecal matter of the dilatation through retarded secretions being only subordinate factors. In all probability the primary changes in appendicitis (catarrh and the thickening of the wall) are induced by the bacteria.—*Canadian Practitioner*.

ON THE USE OF BROMIDE OF POTASSIUM AND SALICYLATE OF SODIUM IN

HEADACHE.—Dr. Brunton (*Practitioner*) first alludes to the fact that absorption from the stomach frequently ceases entirely during a headache, and drugs given by the mouth have then no effect. The only treatment in such cases is morphine, hypodermically; but the possibility of establishing the morphine habit must be kept in mind. He estimates that 80 to 90 p. c. of all headaches are due to defects of vision (uncorrected hypermetropia, myopia, astigmatism, inequality of the focal distance of the two eyes, and imperfect convergent power); 10 p. c. to decayed teeth, and about 5 p. c. to disorders of the nose, throat, ears, scalp and other causes. Headache due to visual defects is generally frontal, temporal or occipital; but in one case recorded in the paper it was about $2\frac{1}{2}$ in. below, and 1 in. to the right of, the occipital protuberance. In those cases associated with unequal visual power of the two eyes, it frequently affects the side of the weaker one. A very common form of headache begins with unwonted irritability at night, which, however, is not always present. The patient wakes at 4, 5 or 6 a. m., but feels disinclined to move, turns over and goes to sleep again. These headaches may often be prevented by taking pot. brom. grs. 30-35, with sodii salicyl. grs. 10-15, in a tumblerful of water, when the feeling of irritability comes in the evening, or, in the absence of that, when waking early in the morning; and this may be repeated once or twice. The two drugs combined act much better than either of them separately. Dr. Brunton concludes by contrasting our present armament of treatment of headache with that of 20 years ago; for whereas then we had little power over them, now we can cure or relieve 9 out of 10 cases by attention to the eyes and teeth and use of bromides, salicylates, antipyrin, phenacetin and exalgine.—*Medical Chronicle*.

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ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

THE SOUTH CAROLINA MEDICAL ASSOCIATION.

The Forty-fourth Annual Meeting of this Association was held in Rock Hill, on the 25th and 26th of April. Though the attendance was not large—only 60 or 70 members being in attendance—those who did attend took much interest in the meeting and were well repaid for the trouble they took to be present.

The papers read were not numerous, but some of them were above the average usually presented at such meetings. The Committee were fortunate in the selection of Dr. Kelly as the Annual Essayist. His address was, however, rather a lecture, which was illustrated by diagrams upon the black-board and by large photographs of cases. He selected as his subject the visual examination of the bladder in the female, and the treatment of uterine fibroids. We

are pleased to announce that we will present this address, with illustrations, to our readers at an early date.

The social features of the meeting were very attractive, and the writer deeply deplores the necessity which called him away before the crowning event—one of those occasions which South Carolina men know so well how to make the best of—the banquet. The people and profession of the pushing little town of Rock Hill opened their hearts and their homes to their guests, and good-will and a kindly welcome quickly changed strangers into friends.

We cannot but be surprised at the lack of interest manifested by the profession of our sister State in their Association. With upwards of eleven hundred physicians in the State, the Association shows a membership of only some two hundred and thirty; and that of this number only sixty should attend

the meetings is greatly to be regretted. If the members do not take more interest in the Association, how can they expect to create an interest among those who are not members? Each member should make it his duty, if it lay in his power, to attend every meeting, and try to induce some neighboring non-member to join. The profession can never attain the place it should in the estimation of the people and of the law-makers except through the organized efforts of the State Association, and the Association cannot exert its proper influence until it reaches that point where it represents the majority of the better element of the profession, and where membership in it affects a physician's standing with the laity.

We are glad to see the recent Legislature did something, as little and unsatisfactory as it is, in the matter of regulating the practice of medicine in South Carolina. As we understand the law, the old condition of two years ago has been restored. The proviso exempting the graduates of State colleges from the examinations is very properly left out, and these have to take their place on the same level with the graduates from other States. The faculty of the South Carolina schools were fortunate in having this clause expunged from the bill, for it cast a reflection upon the standing of their graduates which could not fail to injure their schools; while the fact is that, of the graduates of the Medical College of South Carolina who have been before the Board of Medical Examiners of North Carolina, one hundred per cent. have been granted license. An exceedingly unfortunate and objectionable feature of the present law is, that the members of the Board are all appointed by the Governor, thus converting it into a political grab-bag from

which he will draw a prize who best knows (not medical science, but) how to pull the wires. A Governor may (?) be able to run a saloon successfully, but he is certainly not able to judge intelligently of the fitness of a man to serve as a medical examiner. However, these things move slowly, and we trust our friends across the line will gradually move on to better things, adding from time to time such good features as may suggest themselves, until finally the control of this matter is lodged where it naturally belongs—in the hands of the State Association.

The newly-appointed Board have held one meeting, at which 31 applicants were examined and *all* were licensed. Certainly no one's feelings are hurt yet! This result shows one of three things—a phenomenally excellent class, a very low standard, or very slack making.

THE BULLETIN OF THE BOARD OF HEALTH.

The Secretary of the State Board of Health has explained how the *Bulletin* has to be mailed as third-class matter, each *Bulletin* wrapped separately and having a one-cent stamp attached, because it has no *bona fide* subscribers. He has placed the price at 25 cents, and asks all interested in the Board of Health to send that amount to him at Raleigh. With a reasonable number of paying subscribers the *Bulletin* can be mailed at the rate of one cent a pound—the same as other newspapers. As these publications are for general information and to advance the welfare of the whole State and the country at large, why would it not be proper for the General Government to give all monthly publications of State Boards of Health free transportation through the mails, as is done for the Immediate Weather Reports and the State Agricultural Experiment Stations? Surely information as to conditions affecting the lives and the health of the people is as important to the public welfare as that affecting the crops!

Reviews and Book Notices.

A System of Genito-Urinary Diseases, Syphilology and Dermatology. By Various Authors. Edited by PRINCE A. MORROW, A.M., M.D., Clinical Professor of Genito-Urinary Diseases, formerly lecturer on Dermatology in the University of the City of New York, Surgeon to Charity Hospital, etc. With illustrations. In three volumes. Vol. II. *Syphilology*. Royal Octavo. Cloth. 917 pages. D. Appleton & Co., New York, 1893.

The same great excellence that characterized the first volume of this series is also a feature of the volume before us. Vol. II. is devoted to a study of syphilis in all its phases and has added a separate section on chancroid. The effort has been made to keep the book within as narrow bounds as possible, by omitting theoretical questions and unimportant details of only historical interest. The work is intended to be thoroughly practical, and will commend itself to those general practitioners who desire a reliable authority upon this subject, as well as those specialists who would have a thorough text-book, fully up to date. This statement will require no other verification than a glance at the list of contributors, each of whom has contributed an article under his own name. Thus, passing over the History of Syphilis, by Dr. James Nevin Hyde, and the Etiology, by Dr. John A. Fordyce, we come next to the Modes of Infection, by Dr. L. Duncan Bulkley. These subjects are all carefully treated, then follows a very interesting article from Dr. Edward Bennett Branson, on Primary Syphilis. In writing of "The Mixed Chancre," he says: "Never have they been known to occur when syphilis has been inoculated from pure syphilitic lesions experimentally. Yet it is these

very effects that have long been the subject of contention between the unicists and the dualists; between those, on the one hand, who believe that syphilis and *chancre* are essentially one disease, and those on the other who maintain that they are two separate and distinct diseases. That the latter is the one upheld by the writer is sufficiently implied in what has already been said." And farther on—"the so-called mixed chancre is not, properly speaking, a peculiar variety of chancres, but rather represents an accidental combination of two diseases, viz: *syphilis and chancre*." This interchange of the terms "chancre" and "chancroid," is unfortunate and misleading, and were one to read this section alone, he would hardly know just where to place the writer, but on looking back a page or two we find where he argues for the application of the term "chancre" only to that disease whose constant and essential feature is destructive ulceration, viz: the disease which is designated as "chancroid." It would be far better, in view of the fact that they have nothing in common save their site and mode of infection, to settle upon a name for the simple sore which will avoid any liability to associate it with syphilis.

Syphilis of the Skin is treated by Dr. Morrow, and, it is not necessary to add, is well done. This section is illustrated by numerous colored plates, executed with the highest artistic excellence as to form and coloring. These are all new illustrations and are not so greatly exaggerated as to be of no use to the practitioner.

Each section is worthy of separate and extended notice, but we can only

refer to the thoroughness and practical value of the section devoted to Syphilis of the Nervous System, by Dr. Sachs; two sections on Syphilitic Affections of the Eye, by Dr. Bull, and the Treatment of Syphilis, by Dr. White.

The section on chancroid is under the authorship of Drs. Edward Martin and James P. Tuttle.

A Practical Treatise on Medical Diagnosis, for Students and Physicians. By JOHN H. MUSSEY, M.D., Assistant Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia; President of the Pathological Society of Philadelphia, etc., etc. Octavo, 873 pages, 162 engravings and 2 colored plates. Cloth, \$5.00; leather, \$6.00. Philadelphia, Lea, Brothers & Co., 1894.

Our readers will notice at once that the title of the volume before us is not a *Treatise on Physical Diagnosis*, but on *Medical Diagnosis*. They will not be surprised, then, that it should reach the size of 873 pages of unled matter.

Dr. Mussey's long experience as a teacher of clinical medicine in one of the first institutions of learning in this country, eminently fits him for the task he has essayed. The book will find a place not only in the hands of medical students, but also on the table of the practitioner who would keep abreast of the great advances which have been made in the diagnosis and etiology of diseases.

Part I. is devoted to General Diagnosis, and the opportunity to read this part alone is well worth the price of the volume. In this part is included a chapter on Bacteriological Diagnosis, which is as complete as is necessary for practical use. The technique of bacteriological examinations is discussed from the description of apparatus and its antiseptic preparation, through all the processes of collection, staining, culti-

vation, microscopic examination and the inoculation of animals.

Part II. takes up the diseases of special parts of the anatomy, chapters ix., x. and xi. treating respectively of Constitutional Diseases, The Infectious Diseases, and Diseases of the Nervous System. The whole text is freely illustrated, including two colored plates of photographic reproductions of culture tubes containing colonies of different micro-organisms and micro-photographs of several of the more common varieties.

Dr. Mussey has supplied a work for which there was a place, and we prophesy for it a large sale. The publishers have maintained the high standard usual with them in the mechanical "get up" of the volume.

A Treatise on Headache and Neuralgia, Including Spinal Irritation and a Disquisition on Normal and Morbid Sleep. By J. LEONARD CORNING, M.A., M.D., Consultant in Nervous Diseases to St. Thomas Hospital, etc., with an Appendix—Eye-Strain, a Cause of Headache. By David Webster, M.D., Professor of Ophthalmology in the New York Polyclinic. Illustrated. Third Edition. Cloth, 8vo. 275 pages. Mr. E. B. Treat, 5 Cooper Union, New York, 1894. Price \$2.75.

The author of this volume has, for several years, devoted much attention to the careful study of the subjects here presented, and his suggestions will often be an aid in overcoming some of the obstinate headaches which so often are met with.

The second volume appeared in 1889, and the intervening time between that date and the appearance of the third edition has enabled him to add greatly to his experience and improve on some of his former methods of treatment. We do not approve of the readiness with which he rushes to the use of morphine in these conditions, before other

and less ensnaring remedies are given a trial. The proof-reading might have been better done and the index could easily have been greatly increased in usefulness.

A Practical Treatise on the Diseases of the Hair and Scalp. By GEORGE THOMAS JACKSON, M.D., Professor of Dermatology, Woman's Medical College, N. Y. Infirmary, etc., etc. New, revised and enlarged edition. Cloth. 8vo. 414 pages. Mr. E. B. Treat, 5 Cooper Union, N. Y., 1894. Price \$2.75.

During the seven years since the appearance of the first edition of this work, much has been learned concerning the etiology and treatment of some of the more common and important diseases of the hair and scalp, notably seborrhœa and alopecia areata, and the parasitic diseases.

The present edition has met with a most careful revision at the author's hands, and many new facts have been added, while the whole subject has been

brought fully up to date. A striking feature of the book is the Appendix, with a complete bibliography arranged according to the alphabetic order of the authors. The illustrations are not numerous, but the clearness of the text supplies, in a great measure, this deficiency.

Advertiser's Handy Guide. Compiled and Published by Bates & Morse Advertising Agency, New York; 766 pages, 4½ x 6¾. Flexible covers. Price \$2.00.

The tenth issue of the *Advertiser's Handy Guide* is indeed a book of the century—progressive, up-to-the-times, opportune. All desirable features of previous issues, of arrangement, statistics of circulation of all prominent daily and weekly journals, the grouping of special publications, are reproduced in the present volume. The principal change is in the careful revision which establishes the authority of the handy volume.—*Journal of Education*, Boston.

Correspondence.

Editor N. C. Medical Journal:

I endorse fully your remarks on ignorant mid-wives. I believe there ought to be a law requiring every woman, who proposes to practice the profession to be examined by a county examiner, and if she stands an approved examination, she should be licensed by the county examiner, and then be registered as such. I will give you two cases that I have had to witness, and could give others, that show the necessity for such a law:

Case 1.—Mrs. G. had some signs of labor on Sunday and sent for a mid-

wife, who worked with her until Thursday, when they sent for another; both continued with her one day and night, when another was sent for—all three laboring with her Friday and Friday night.

On Saturday I was sent for. When I got there they had her on the lap, and the oldest and *most experienced* one was handling her. I asked what was the matter. She said all was right, and that the child would be born in half an hour. I asked her to let me examine the case. She said well, but that the child would soon be born. When I ex-

amined the woman I found her swollen so that the child could not be born without ruining her—the child's head above the bony parts; but they had stretched the os open so that the head could have done the rest if true labor had been in progress. I had her put to bed, gave her 18 grain morphia, and applied warm cloths, wrung out of red-oak bark infusion to the parts. She had no pains after I arrived.

On the following Wednesday I passed by the house and found her up cooking. The next Saturday night she had her child before any one could be got to her.

Result: child dead and woman's health ruined.

Case 2.—Mrs. R. I was sent for about midnight to see this woman, four miles off. The caller said there was a midwife with her, but something was wrong and I must hurry. We rode fast, and in two miles we met a man in a lope saying: "Hurry up!" I put my horse in a lope, and one mile further met another, saying: "Hurry up, the woman will die!" I put my horse to full speed, and before I got there met a woman bare-headed running, with the same tale, "Hurry!" I did not even take time to hitch my horse—ran in, found the old midwife with her feet set pushing as if for life, and sweating profusely. I said: "What is the matter?" She said: "The womb and all are coming!" I ran to the woman, found nothing wrong. She had mistaken the membrane that covered the head for the womb, and had held the child back for two hours by main force. The child was born in less than one minute after I took the case.

Result: child dead, and woman's health ruined.

I could give other cases, but these two illustrate the workings of ignorant mid-wives. Let us call on the next

Legislature, for the sake of the women of our State, to stop this ignorant butchery. J. A. REAGAN, M.D.

Editor N. C. Medical Journal:

With your kind permission, I would like to make some criticisms upon your editorial remarks on my letter in your April number. You say: "No one will deny that there are certain cases in which it is almost a necessity to get the patient away from home influences, and which can be treated with much greater hope of success, where perfect hospital facilities and nurses trained in special lines may be had." Of course this refers to hysteria, so-called cases of neurasthenia and the numerous cases resulting from defective tissue metabolism, etc. These cases are cured in institutions that use natural forces as curative agents, such as massage, movement cures, physical culture, electricity and hydrotherapy. All these remedies can be used in the home of the physician, and if he has a managing and enthusiastic wife his results will be as good as possibly can be had in the best hospital. There is room enough in this State for at least ten or twelve small institutions of this kind. Why don't some doctors with business ability inform themselves upon such methods and start such institutions? They will pay, and moreover save the profession of the State from a part, at least, of its present disgrace. I have never sent or advised a patient to go outside the State for any kind of treatment, but would take great pleasure in recommending patients to institutions of this kind located in the State. This is the line upon which I started my sanatorium, and as long as I would take such patients had plenty of them, and it paid very well. I quit taking such patients because I found that I could not run chronic diseases

and surgical cases in the same building. Being better equipped for diseases of the eye and general surgery, our institution is now devoted to that class of disorders.

"You say that the result of an operation upon a prominent person is of far more importance to the home surgeon who has a reputation to make than to the eminent specialist. When the home physician undertakes an operation upon a prominent person his reputation and his living are at stake. A failure would do him incalculable injury, while success would excite but little comment. Is it any wonder, then, that the home surgeon should hesitate to dissuade one who has shown an inclination to go North to have an operation performed? A dozen successes in the lower walks of life will not counteract one failure in high life."

You clearly express the sentiments I used to feel in regard to people of prominence, but have long ago concluded that they were the result of cowardice and a distrust of my own ability. I suppose most doctors have at some time felt the same way. So long as a doctor is distrustful of his powers he has no business assuming grave responsibilities, whether the patient be pauper or king. The only way I know of overcoming this feeling is to work hard, be sure of your knowledge, and then visit the polyclinics and there compare your own work with the great men in the profession. If satisfied that the major part of your work is not as good as theirs, either make it as good as theirs nor quit the drive.

Half-handed and half-hearted men never accomplish anything anywhere; but they have a very depressing effect upon those who are using manly efforts to advance their own fortunes and the honor of the profession.

To those who determine to bring

country and village surgery up to a high standard, let me say there will be all sorts of impediments thrown in the way. A few years of hard and careful work, with a tenacity of purpose, will accomplish it. To the sap-headed and chicken-hearted old grannies who call themselves doctors, I will say self-interest would dictate the expediency of helping to develop one or more good surgeons in each county. You don't know what accident may happen to you or yours—a broken limb, a strangulated hernia, a fractured skull, a foreign body in wind-pipe, an appendicitis, and many other things may happen that will not give you time to run off to the city hospitals, and if there is no one capable of dealing with such cases, you or yours may get a speedy trip to the great beyond. Individual experience with capable first-class physicians has been to the effect that they are the home surgeon's best friends.

H. O. HYATT, M.D.

Kinston, N. C., April 22, 1894.

Editor N. C. Medical Journal :

We notice in the April number of your JOURNAL an article read before the Guilford County Medical Society by Dr. W. P. Beall, in which he mentions Peacock's Bromides in connection with quacks, secret preparations, etc.

He also states that any druggist can prepare the same preparation equally as good and at half the cost.

As these statements are entirely at variance with the facts and do an injustice to the many thousands of physicians of this country and Great Britain, who have found it advisable to use and endorse our preparation, we feel called upon, in justice to all concerned, to ask you to publish this letter in the next issue of your valuable JOURNAL.

It is generally conceded by all chemists

that the commercial bromine salts, found on our markets, contain a large percentage of impurities, and the following, from the *Journal of the American Medical Association*, upholds us in this position:

"IMPURE BROMIDES.—Helbing's Pharmacological Record has an important statement concerning the undue proportions of potassium chloride that is found in the bromide. An examination held by Helbing and Passmore show that it is a serious matter to buy the potash salt at the present time without having it carefully analyzed as to the percentage of chlorides it may contain. The importance of purity in a drug of this nature is very great, and will receive the earnest heed of neurologists everywhere."

The American Analyst, an authority upon such subjects, after thoroughly investigating our claim for Peacock's Bromides, says:

"Of the 100 pounds of bromine, those with potassium, sodium, lithium, calcium and ammonium are the only ones of real practical value. All of these are powerful nerve sedatives. They differ as the bases differ in chemical and medical properties."

The difficulty with the rarer alkalis is in separating them from their commoner fellows. This is illustrated by the market price of common and chemically pure potash, etc.

"It occurred to Mr. Peacock that, by combining the five bromides described, he could obtain a compound salt possessing the good qualities of each chemically pure salt.

"Long-continued experiments finally gave him a superior working formula on the one side, while careful quantitative analysis allowed him to use potash, soda and lithia combined, that would have cost ten times as much if separated by

the most economical manufacturing chemist. The formula referred to makes each fluid drachm of Peacock's Bromides represent 15 grs. of the combined chemically pure bromides of potassium, sodium, lithium, ammonium and calcium. In this form it possesses all the best qualities of the bromides, with a minimum depressing influence upon cardiac action, and a minimum tendency toward producing acneform eruptions."

Thus contradicting the statement that a preparation can be made from the commercial salts as good and cheaper than Peacock's Bromides.

Prof. Woodbury, in his address on Medicine and Materia Medica before the American Medical Association, the fountain-head of medical ethics, says:

"In the choice and application of remedies the modern physician is independent of the dictum of school or dogma;" and further: "Our great manufacturing houses of established reputation have gained the confidence of the profession by the standard quality and pharmaceutical elegance of their preparations, so that it is necessary occasionally for the prescriber to specify certain manufacturers' products; and, although it is acknowledged that this practice may be abused, yet it must be admitted to be within the right of the physician to require a particular brand of preparation, and this liberty of choice will be respected by all reputable pharmacists."

That a preparation like Peacock's Bromides, which is not patented or copyrighted, which honestly states its composition and which has never been advertised outside of the medical profession, should be classified by Dr. Beall as a quack nostrum, is a great injustice.

We respectfully invite the attention of Dr. Beall and your many readers to our modest claim.

In the first place, we have for years devoted our entire attention to the placing before the medical profession a chemically pure bromide preparation that can be infinitely depended upon, and in which claim we have been supported by Messrs. Helbing & Passmore, the eminent English Chemists, and others who have given this matter some thought and study.

Secondly, we claim that it is as ethical to specify Peacock's Bromides as it is to

ask for P. & W's Quinine or Squibb's Ergot.

Upon request, we will mail to any physician interested, a chemical statement of the difference between the commercial bromide salts, found upon the shelves of apothecaries, and the chemically pure salts which enter the composition of Peacock's Bromides.

Yours, very truly,

PEACOCK CHEMICAL CO.

St. Louis, Mo., May 2, 1894.

Notes of Practice.

In the treatment of hæmoptysis due to tubercular phthisis, Eklund (*Therap. Gazette*) deprecates the use of pillets and cold drinks, as these tend to irritate the ends of the pneumogastric nerves and to produce a greater determination of blood to the lungs. He recommends warm, mucilaginous potions, having found them very useful. He advises against washing the mouth and gargling with cold water, as these practices irritate the terminals of the fifth, vagus and glosso-pharyngeal nerves, which all communicate intimately, and thus increases expectoration. He calls special attention to the value of quinine administered as follows:

R.—Quinæ, sulph. ʒ i
 Ext. ergotæ gr. xxx
 M. et ft. pil. No. 40. S. One to two pills two to four times daily.

Or the following:

R.—Ext. hamamelis fl.
 Ext. cinchonæ fl., aa, ʒ ij
 Ext. glycyrrhiæ ʒ ijss
 Aquæ, dist. Oj. M.

S. Shake thoroughly and take one to two dessertspoonfuls every two or three hours.

Dr. Wm. B. Dewees, in a recent paper read before the Mississippi Valley Medical Association, advocates strongly the erect posture in digital examinations undertaken for the accurate estimate of—

1. Displacements of the uterus.
2. Vesical and rectal disorders.
3. Lack of perineal and vaginal support.
4. Ovarian and tubal disorders.
5. Abdominal and pelvic tumors.
6. Differentiation between abdominal tumors and pregnancy.

FOR PNEUMONIA: Dr. Benj. Edson (*Medical World*) recommends in the resolving stage of pneumonia, when the cough is persistent and the sputum thick and viscid, the following:

R.—Ammonii chloridi. ʒ ij
 Eucalyptol. ʒ jss
 Syr. tolu. ʒ j
 Syr. acaciæ ad ʒ jv

M. S. One teaspoonful every two to four hours.

Extract of cotton-root (gossypium herbaceum) is highly recommended by Dr. Poteyenks as an effective hemostatic,

not only in menorrhagia, but other forms of hemorrhage. He gave it successfully in a case of persistent epistaxis in a young man, after numerous other remedies had failed. It is given in doses of 20 to 30 drops, three or four times a day.

Dr. F. Velingemann, of Bonn, after a careful study of the question as to whether the taking of alcohol by a nursing mother results in its presence in the milk, concludes that, so far as the infant is concerned, there is no danger or objection to allowing alcoholic stimulants, as especially ale, porter, and other malt liquors to nursing mothers.

The most conservative treatment of malarial hæmaturia, says Dr. Frank A. Jones (*Amer. Pract. and News*), is to support the powers of the patient and eliminate the malarial poison from the system as speedily as possible. Arouse the organs of secretion and excretion, the liver and the kidneys. To accomplish the last-mentioned indication we have at our disposal a time-honored remedy for many complaints, a remedy that is to the profession, especially to those of us who practice in the Delta, as the unit one is to mathematics, the basis, the sheet-anchor—truly the great mogul, calomel. It may be given for nearly every indication. Give it as a diuretic; give it as a cholagogue; give it as an antiseptic, and give it to make the bugs sick. It may be given *ad libitum*, say 5 to 10 grains every two or three hours until we get the full physiological effects, until we get free and copious actions from the liver. After we have gotten the effects from the calomel we may then give hyposulphite of sodium, an excellent remedy, introduced a few years since by a prominent physician in Arkansas. Twenty grains may be given every two or three hours, as the case

demands. It acts well in disengorging the liver, and assists also in eliminating the urea which is present in considerable quantity. For the distressing nausea I have found nothing better than ice-water given freely. It is very acceptable to the patient, and I consider it the best of all antipyretics. If the stomach does not retain the water, repeat until the stomach becomes quiet. Ice poultices over the stomach are also beneficial in allaying the nausea. Hot lemonade acts well in arousing the sweat glands. The following formula, which I have been using of late, has been of much benefit to me :

R.—Salol.....gr. v.
Dover's powder.....gr. iij.
Ergotol.....gr. $\frac{1}{4}$.

M. Ft. cap. Sig. Capsule every three hours, as the case indicates.

I use this formula where the hemorrhage is profuse. The salol acts as an antiseptic, the Dover's powder acts as a diaphoretic, and has a tendency to quiet the nervous system. The ergotol controls the capillary action. When there are symptoms of collapse nothing is better than strychnine given hypodermically, one-fortieth of a grain at proper intervals until the heart responds.

PLEURITIC EXUDATION.—To prevent extension of exudation: Absolute rest in the recumbent position, until temperature has been normal for eight days, the heart and respiration being the guides as to increase of fluid. No movement to be permitted for the purpose of examining the chest or for any other object. Striking results reported.—*Ex.*

In the use of the uterine curette two things are necessary for success—perfect cleanliness and antisepsis, and the thorough removal of adventitious tissue.—DR. BRIGGS.

FOR SCIATICA use the following :

R.—Opii pulv.,
Ipecac pulv. aa. gr. xij.
Sodii salicylat. dr. j.
Ext. cascariæ fl. q. s.

M. Div. in pil. No. xij. S. One to two pills for a dose.—DR. B. W. RICHARDSON.—*Ex.*

FOR ERYSIPELAS: (Azel Winckler's *Therapeutic Lexicon*.)

R.—Tannini. gr. xv—xxij
Camphoræ. gr. xv—xxiv
Ætheris. ʒ ijss. M.

S. To be painted on the affected parts every three hours.

Or as follows :

R.—Camphoræ. ʒ yjss
Ætheris. ʒ jss M.

S. To be applied every five hours.—*Med. Chronicle.*

ODORLESS IODOFORM.—Iodoform, it is said, can have its disreputable odor successfully masked in the following combination : Iodoform, powdered benzoin, powdered cinchona, and magnesium carbonate, equal parts, and a little oil of eucalyptus. The formula is credited to Lucas-Championnière.—*Ex.*

URTICARIA IN CHILDREN.—Funk and Grundzach (Varsovie) obtained good results with the following treatment : Once or twice daily external application to the body of tepid diluted vinegar, and then of a powder. During night the children are covered lightly. In the cold season they recommend warm salt baths; during the warm season baths should be avoided. Internally they prescribe :

R.—Antipyrini,	Gram.
Aq. distill,	15
Syrup gummos. aa. 25	

T.—Administer in the evening one teaspoonful.—*Ex.*

In feeding infants artificially, Dr. Louis Fischer says : "Never give any food preparation containing starch during the first three months. As cow's milk differs so much from human milk, it must be diluted by adding substances which increase its digestibility and prevent its curdling. Oat-meal gruel may be added when constipation exists, and barley when there is a tendency to diarrhœa. In making these gruels the entire grains (shells) should be used, as these contain a certain amount of albuminoid. Sugar is added by using sugar of milk, and the salt supply is the ordinary table salt. The milk should come from several cows, to avoid the exclusive use of a secretion from any one animal that may possibly be diseased. The milk used should always be sterilized.—*Ex.*

GUAIACOL IN THE TREATMENT OF BLENNORRHAGIC EPIDIDYMITIS.—At a recent meeting of the *Société médicale des hôpitaux*, of Paris, a report of which we find in the *Union médicale* for April 10th, M. Balzer and M. Lacour stated that they had obtained excellent results in the treatment of blennorrhagic epididymitis with guaiacol. On the skin of the inguinal region, they said, pure guaiacol could be applied; on the scrotum it was better to employ an ointment of from two to five parts of guaiacol to thirty of vaseline. One of the first effects of the application of this ointment was a rather sharp burning, lasting for about ten minutes; then the patient felt a sensation of heat, and almost immediately the pain disappeared, at least for three or four hours, and sometimes it did not return. Ordinarily it was necessary to make two applications on the first day, but after the third day there was no longer any pain. The applications were then discontinued.

for they did not seem to exert any very decided resolvent action upon the inflammatory infiltration of the epididymis. It was evident, the authors said, that guaiacol exerted a very clear and energetic effect upon the pain of the disease; moreover, it overcame certain of the general symptoms which were due to

the pain, for example, sleeplessness. It gave rise to a slight erythema of the scrotum, followed by drying and exfoliation of the epidermis. The authors had treated twenty cases with guaiacol, and in all of them the results had been most favorable and very rapid.—*New York Medical Journal*.

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Dr. W. E. Headen has removed from Pittsboro to Chapel Hill, N. C.

Dr. Charles T. Harper has spread his banner to the breezes of the Cape Fear at Wilmington. We welcome him and wish him success.

Dr. Wm. Pepper has tendered his resignation as Provost of the University of Pennsylvania. During the thirteen years the number of instructors at the University have increased from 88 to 268; the number of students from 981 to 2,180, and the value of property from \$1,600,000 to over \$5,000,000.

Dr. E. C. Wagner, Wilkes Barre, Pa. (*Univ. Med. Mag.*), reports a case of pneumonia in a boy, aged 5 years, in which the temperature on the second day rose to 109.3° F. This temperature was verified by a second thermometer, which registered 109.2°. The temperature was reduced to 103° by the bath and two doses of spirits turpentine, each ʒss. The temperature thence varied from 105° down, with defervescence on the seventh day and recovery.

The reports of cholera from Turkey are not reassuring. Spain has already established quarantine along the frontier. The disease continues to spread in Constantinople.

There were 508 cases of smallpox in Chicago in April, and now there is an average of about 20 new cases a day. The public schools have been closed for a week upon suggestion from the Board of Health.

The *Lancet* of April 21st reports a death from chloroform. The patient had successfully taken chloroform two years before. An examination just before the administration showed the heart to be normal. There was impaired percussion resonance over apex of left lung. The necropsy showed in this lung a few pleuritic adhesions with a small mass of caseating tubercle.

The new College of Physicians and Surgeons, Richmond, Va., has changed its name to the University College of Medicine. We consider the name se-

lected as rather unfortunate, as it will more than possibly result in the College being confounded with the Medical Department of the University of Virginia,, with which, however, it has no connection.

Professor Dunn tells of Sir James Simpson that, "after seeing the terrible agony of a poor Highland woman under amputation of the breast, he left the class-room and went straight to the Parliament House to seek work as a solicitor's clerk. But on second thought he returned to the study of medicine, asking, "Can anything be done to make operations less painful?" The ultimate result was the discovery of chloroform, and so the suffering of one became the occasion of the deliverance of many.—*Exchange.*

In England, the number of deaths in each year from small-pox per one million inhabitants, was, at the close of the last century, 3,000; from 1841 to 1853 (average), 304; from 1854 to 1863 (average), 171. And in other countries, according to the complete reports from official sources for 1887 and 1888, illustrating the benefit of compulsory vaccination compared with voluntary, the number of deaths from small-pox per one million inhabitants in each country named for the period has been as follows:

Vaccination Optional.

	1887.	1888.
Austria-Hungary.....	583.7	540.3
Russia.....	535.9	231.5
France.....	167.0	191.9

Vaccination Compulsory.

	1887.	1888.
German Empire.....	1.8	0.8
Denmark.....	0.0	0.0
Sweden and Norway....	0.0	0.0

The experience of this Department is that the average immunity secured by

vaccination does not extend beyond five years. It is a well recognized fact that even an attack of small-pox does not necessarily protect from a recurrence of the disease, and statistics show that a second attack is apt to be more fatal than an attack after an efficient vaccination; therefore vaccination after an attack of variola is also advised.—Circular of Brooklyn Board of Health in *Brooklyn Medical Journal.*

Dr. Richard H. Lewis, Raleigh, Secretary of the North Carolina Board of Health, desires information as to the effect on the health of families in malarial districts of this State of changing from the use of surface water to that obtained from cisterns or driven wells. If any of our readers can cite him instances of this kind and the result, he will be glad to hear from them.

To practice medicine in any of the following States an examination before a board of examiners is required: Alabama, Arkansas, Florida, Maryland, Minnesota, Mississippi, New York, New Jersey, North Carolina, North Dakota, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Virginia and Washington. Maine, Massachusetts, New Hampshire and Rhode Island have no practice laws. In Arizona, Georgia, Idaho, Indiana, Kansas, Michigan, Nevada, Ohio, Wisconsin and Wyoming, a diploma from any chartered medical institution is all that is necessary.

A well-known doctor of this city, who has a very prominent abdomen, recently confined a lady, and in a day or so the following conversation was overheard: First little girl—"Where did you get your baby?" Second little girl—"Dr. ——— gave it to us." First little girl—"Oh! has he got babies?" Second lit-

tle girl—"Oh! yes, he's just full of 'em!"—*Ex.*

The well-known druggist, Theodore Metcalf, died in Boston, April 26th, at the age of 82.

The eighth annual meeting of the American Orthopædic Association will be held in Washington, D. C., May 29th to June 1st inclusive. A program, rich in papers, has been prepared.

Muller's Fluid, which is, perhaps, the most commonly used for hardening pathological specimens, is made as follows:

Potassium bichromate . . . 2 parts.
Potassium sulphate 1 part.
Water 100 parts.

The Association train will leave Chicago Monday, May 28, via Santa Fe R. R., Rio Grande Western, and Southern Pacific, for San Francisco via Denver, Colorado Springs, Leadville, Manitou, Glenwood Springs, Salt Lake, Ogden, Truckee and Sacramento. Returning, after the meeting, the train will pass through Sacramento and Northern California to Portland, thence east by way of the Northern Pacific R. R. to St. Paul. C. M. & St. P. P. St. Paul to Chicago. A stop over at Yellowstone National Park for those who desire it has been arranged, and it has been understood that at several places on the journey there will be short stops. President Hibberd's party, in a special car, will join the train at Chicago, and the St. Louis party are expected to join at Kansas City. From all points east and south, concentrating on this train should be effected at Chicago and St. Louis. For all information relating to this train, fares, etc., address J. M. Connell, 212 Clark St., Chicago, or any agent of Santa Fe line in other cities. Rates promised are the lowest excursion rates at time of

departure. This is the only route on which arrangements have been perfected by the trustees.—*Jour. American Medical Association.*

HEALTH OF WILMINGTON.—February. *Whites*—Population 9,000; deaths, excluding violence and still-births, 4; represents an annual death-rate of 5.3.—*Colored*—Population 13,000; deaths, excluding violence and still-births, 29; represents an annual death rate of 26.8. Total—Population 22,000; deaths 33; death-rate 18.

March.—*Whites*—Population 9,000; deaths 10; death-rate 13.3.—*Colored*—Population 13,000; deaths 25; death-rate 23.1. Total—Population 22,000; deaths 35; death-rate 19.1.

April.—*Whites*—Population 9,000; deaths 12; death-rate 16.0. *Colored*—Population 13,000; deaths 20; death-rate 18.5. Total—Population 22,000; deaths 32; death-rate 17.4.

SOLANUM CAROLINENSE.—This Southern plant, properly known as poison potato, ground-potato, horse-nettle and tread-soft, has been made the subject of study by Mr. J. U. Lloyd, who gives an account of it in the April number of the *American Journal of Pharmacy*. It appears that the plant is reputed poisonous, perhaps because animals of all kinds refuse to eat it; that the negroes of the South have longed used it as a domestic remedy for convulsions and as an aphrodisiac; and that it was brought to the attention of the medical profession in 1889 by Dr. J. L. Napier, of Blenheim, S. C., in a paper read before the Medical Association of South Carolina. Dr. Napier found the root and the berries efficient in checking convulsive attacks, especially those connected with the menstrual period; also in epilepsy, puerperal and hysterical convulsions and traumatic

tetanus. He used a whiskey-and-water preparation, but its strength is not specified by Mr. Lloyd. Dr. Napier states that the plant is a very active diuretic, besides being antispasmodic and anodyne. A syrup made from it has a local reputation in Georgia as a remedy for cough. Mr. Lloyd has obtained from the root an alkaloid to which he gives the name of *solanine*, to distinguish it

from *solanin*, with which he thinks it is not identical, so far as can be inferred from what is now known, especially from the crystallization of solnine, of which an excellent illustration accompanies the article. It is to be hoped that therapeutical experiments with this new alkaloid will soon lead to more precise information as to its medicinal properties than we now possess.—*N. Y. Med. Jour.*

Reading Notices.

DIOS CHEMICAL CO., St. Louis, Mo.

Mobile, Ala., Feb. 20, 1894.

GENTLEMEN:—The Sennine which you sent me is a good combination for dry dressings. It is put up in a convenient form, and I shall continue to use it to advantage.—From C. H. Mastin, M.D., the most prominent Surgeon in the South.

T. D. Finck, M.D., Kentucky School of Medicine, Louisville, says:

"I am convinced there is no remedy so useful and attended with such satisfactory results in the treatment of melancholia with vasomotor disturbances, anemic headaches, emotional distress and active delusions of apprehension and distrust, as ANTIKAMNIA. It also increases the appetite and arterial tension, as well as being particularly serviceable in relieving the persistent headache which accompanies nervous asthenia."—*Cin. Lancet-Clinic*.

The Pharmacopœia is singularly poor in vegetable alteratives, and sarsaparilla, the best known and most frequently prescribed, is most uncertain in action and frequently very disappointing in

results. Any well-tested addition, therefore, to our materia medica in this class of remedies, will, we are sure, be gladly welcomed by practitioners. Some time ago we received from Messrs. Parke, Davis & Co. of Detroit, U. S. A., a sample of a syrupy compound containing the essential elements of *Trifolium pratense* (red clover), *Stillingia sylvatica* (yaw root), *Lappa officinalis* (burdock), *Phytolacca decandra* (pokeroor), *Berberis aquifolium* (mountain grape), *Cascara amara* (Honduras bark), and *Xanthoxylum Americanum* (prickly ash). All these are powerful alteratives, and have been in common use by American physicians in cases of a scrofulous or syphilitic nature. The proportions of each drug contained in the syrup are given with the directions, and to increase its operative action 8 grs. of iodide of potassium have been added to each ounce. We have used it with decidedly satisfactory results in some cases of chronic skin diseases of suspected specific origin. Being very palatable, children take it very readily, and we have found it exceedingly useful, when combined with small doses of perchloride of mercury, in treating congenital syphilis.—*Hosp. Gaz.*

WARNER & CO.'S PIL: CHALYBEATE

3 Grains. Dose 1 to 4 Pills.

COMPOSITION:

Ferri Sulph. $\text{Fe}_2 \text{SO}_4$ }	Ferri Carb. Fe CO_3
Potass. Carb. $\text{K}_2 \text{CO}_3$ }	Potass. Sulph. $\text{K}_2 \text{SO}_4$

As Prepared by **WM. R. WARNER & CO.,**

Philadelphia.



The above combination which we have successfully and scientifically put in pill form, produces, when taken into the stomach, Carbonate of the Protoxide of Iron (Ferrous Carbonate) in a quickly assimilable condition.

This pill contributed to make the reputation of Niemeyer, and the following language, which speaks without comment, is taken from his **TEXT BOOK ON THE PRACTICE OF MEDICINE.**

Prof. NIEMEYER says: "For more than twenty years I have used these pills almost exclusively in Chlorosis, and have witnessed such brilliant results from them in a large number of cases that I never needed any opportunity to experiment with other articles. At Magdeburg and Griefswald I often had to send my recipe for the pills to a great distance, my good fortune in the treatment of Chlorosis—to which by-the-by, I owe the rapid growth of my practice—having given me repute as the possessor of a sovereign remedy against that disease."

FOR THE SPEEDY RELIEF OF

NERVOUS HEADACHE and BRAIN FATIGUE.

WARNER & CO.'S EFFERVESCING

BROMO— (WARNER & CO.) —SODA.

Useful in Nervous Headache, Sleeplessness, Excessive Study, Over Brainwork, Nervous Debility, Mania, etc.

DOSE.—A heaping teaspoonful in half a glass of water, to be repeated once after an interval of thirty minutes, if necessary. Each teaspoonful contains 30 grs. Bromide Sodium and 1 gr. Caffein.

It is claimed by some prominent specialists in nervous diseases that the Sodium Salt is more acceptable to the stomach than the Bromide Potassium. An almost certain relief is given by the administration of this Effervescing Salt. It is also used with advantage in *Indigestion, depression following alcoholic and other excesses, as well as nervous headache.* It affords speedy relief for mental and physical exhaustion.

GRANULAR EFFERVESCENT

BROMO— (WARNER & CO.) —LITHIA.

EACH DESERTSPOONFUL CONTAINS

**R. Salicylate Lithia, 10 grs.
and Bromide Soda, 10 grs.**

A Remedy in the Treatment of

Rheumatism, Gouty Diathesis, Etc.

Dr. A. Garrod, the well-known English authority on Gout, who was the first to introduce the Lithia Salts in the treatment of the gouty diathesis, states that their action is materially increased by being administered in a *freely diluted form.*

This effervescing salt of Lithia furnishes an easy and elegant way of applying Dr. Garrod's methods.

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Each fluid drachm represents 15 grains of the Combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium and Lithium.

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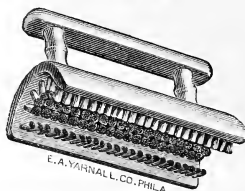
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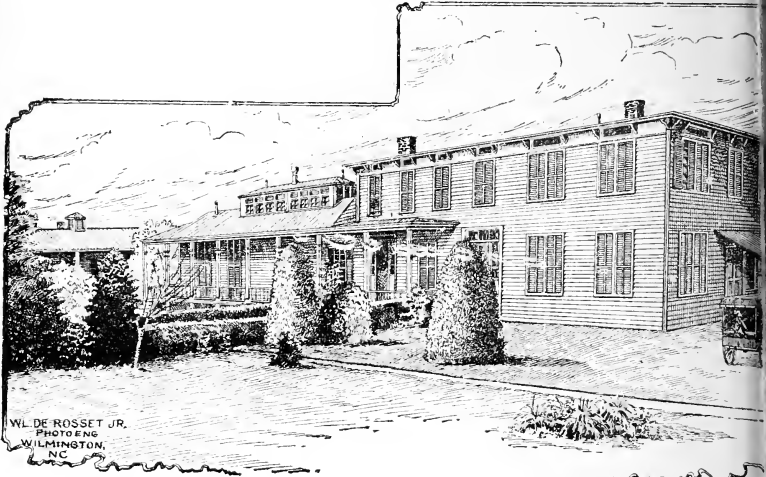
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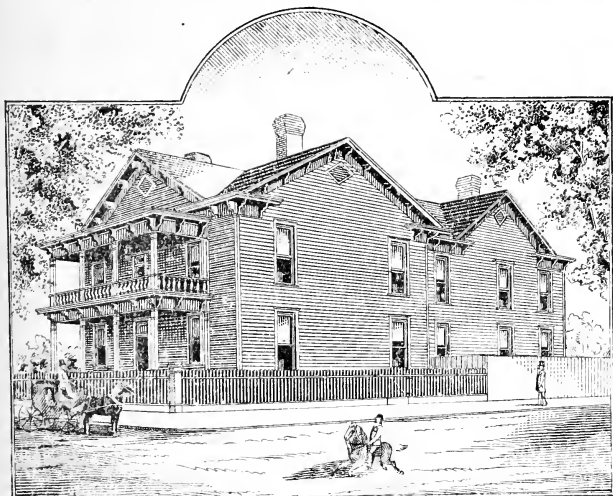
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is acknowledged by all to be most difficult of successful treatment, as in its later stages (Interstitial Nephritis) the kidneys undergo organic disintegration. The evidence here submitted shows conclusively that Buffalo Lithia Water will not only cause these dangerous symptoms to disappear, but will, so far as can be ascertained, produce a permanent cure.

The late **Thomas P. Atkinson, M. D.,** *ex-President of the Medical Society of Virginia*, says: "When used at an early stage, while enough of the renal structure remains to answer

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"the purpose of purifying the blood, Buffalo Lithia Water is of decided efficacy in Bright's Disease of the Kidneys, and, indeed, in some cases where the destruction of the kidney has been greater, its use has resulted in partial restoration and prolongation of life."

Dr. M. M. Jordan, of Boydton, Virginia, suffered from Bright's Disease of the Kidneys, with Uremic Poison, manifested by coma and delirium, everything pointing to a fatal termination. He writes: "Under the continued use of Buffalo Lithia Water there was slow but constant improvement in my condition, until I was so far restored as to be able to enter actively upon the practice of my profession, in which I have now been engaged for some two

"years, without any interruption on account of my health."

Dr. Graeme M. Hammond, Professor of Diseases of the Mind and Nervous System in the New York Post-Graduate Medical School and Hospital, says: "In all cases of Bright's Disease of the Kidneys I have found Buffalo Lithia Water of the greatest service in increasing the quantity of urine and in eliminating the albumen."

Puerperal Eclampsia. Albuminuria.

Buffalo Lithia Water is recommended both as a remedy and prophylactic for Puerperal Eclampsia. There is every reason to believe that the free and persistent use of this Water in the very earliest stages of these cases would cause the patient to escape the further development of the insufficient renal function.

Dr. William Thompson Lusk, of New York, Professor of Obstetrics and Diseases of Women and Children in the Belterne Hospital Medical College, in "*The Science and Art of Midwifery*," after speaking of the value of the "milk diet" in Puerperal Eclampsia, advises that,

where the diet is badly supported by the patient, she should be advised to drink freely of the naturally Alkaline Waters possessing mildly diuretic properties, and suggests the Buffalo Lithia Water and others.

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Dr. Martin L. James, of Richmond, Virginia, reported a case of Congestion of the Kidneys to the Richmond Academy of Medicine. The case was that of a lady eight months advanced in Pregnancy, attended by marked Oedema, both over the extremities and surface, and by Uremic Poisoning to such an extent as very seriously impaired the vision of the patient. The patient was relieved by the free use of Buffalo Lithia Water for three weeks. Other remedies, he stated, were used in these cases, but the favorable results seemed clearly attributable to the action of the water.

Dr. George M. Miltenberger, Professor of Obstetrics, University of Maryland, before the Medical and Surgical Faculty of the State of Maryland, recommended Buffalo Lithia Water as an alkaline diuretic in Albuminuria of Pregnancy.—*See Transactions, Faculty of State of Maryland, 1886.*

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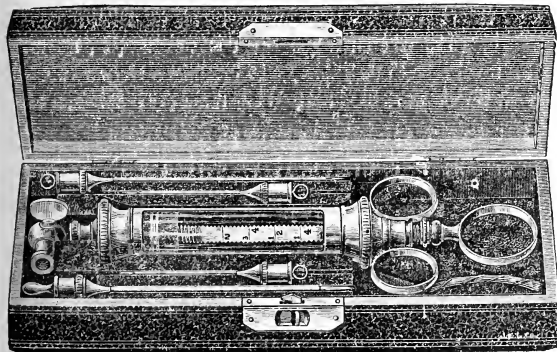
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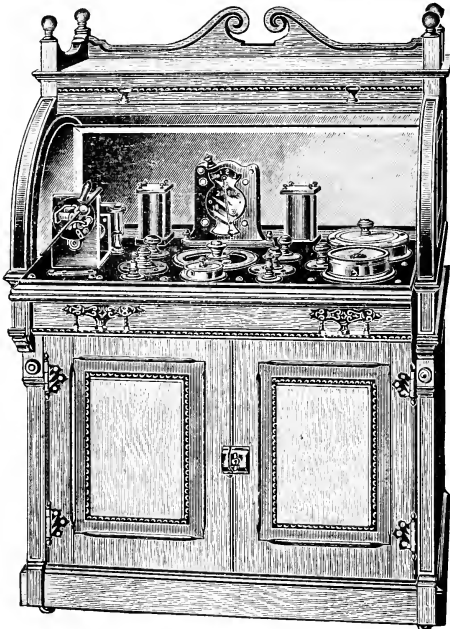
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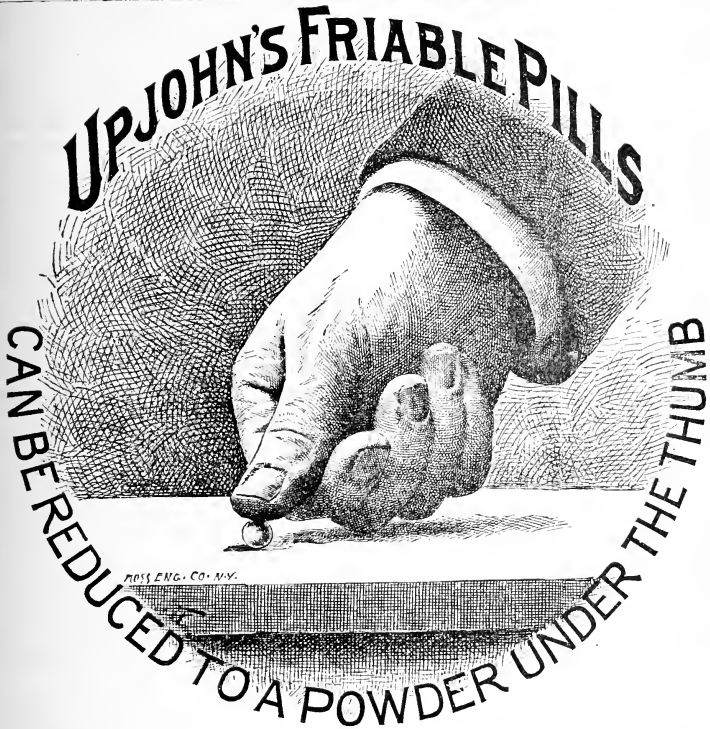


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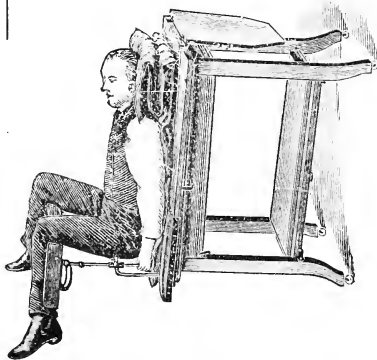
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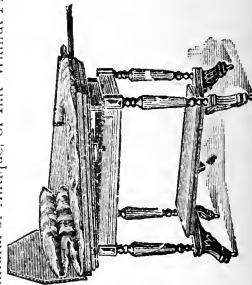
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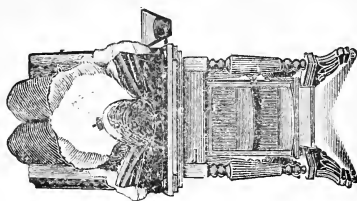
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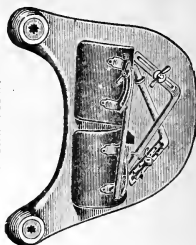
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NORTH CAROLINA

MEDICAL JOURNAL.

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Table of Contents, - - Page 5.)

Index to Advertisers, - Page 6.)

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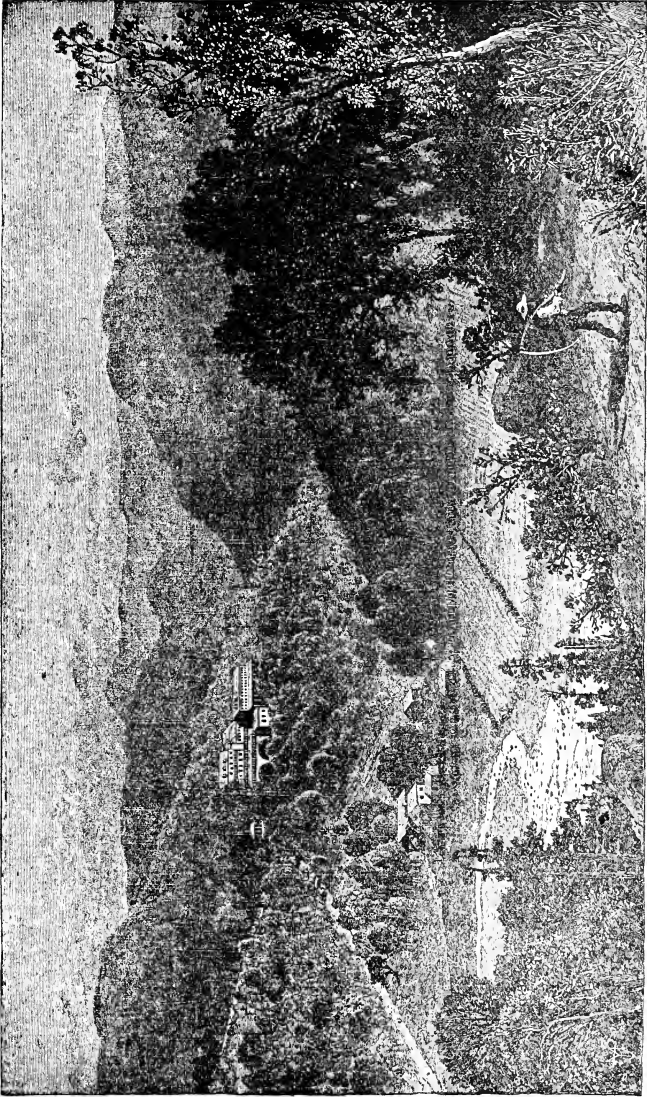
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Table of Contents.

Original Communications :

"The Land of the Sky"—Flat Rock and Hendersonville, N. C., as Health Resorts.— <i>Allard Memminger, M. D.</i>	237
Typhoid Fever— <i>J. L. Napier, M. D.</i>	242
Analysis of the Sixteenth Year's Annual Report of the Presbyterian Eye, Ear and Throat Charity Hospital of Baltimore— <i>J. J. Chisolm, M. D., LL. D.</i>	244
Why Chronic Urethritis is Ordinarily Difficult of Cure and an Efficacious Method of Curing It— <i>Branford Lewis, M. D., (illustrated)</i>	247
Cerebral Abscess in an Infant— <i>C. G. Nichols, M. D.</i>	252
Paralysis Following Labor in a Primipara.— <i>R. C. Ellis, M. D.</i>	253

Editorial :

The Medical Society of the State of North Carolina	263
Meeting of the Board of Medical Examiners of North Carolina	265

Reviews and Book Notices :

Clinical Diagnosis, <i>Abrams</i> ; An Illustrated Encyclopædic Medical Dictionary, <i>Foster</i> ; Lectures on Auto-Intoxication in Disease, <i>Bouchard</i> ; A New Aid Series of Manuals for Students and Practitioners; International Medical Annual; Essentials of Nervous Diseases, and Insanity, <i>Shaw</i> ; Essentials of Practice of Pharmacy, <i>Sayre</i> ; Transactions Southern Surgical and Gynæcology Association	366-268
--	---------

Society Reports

North Carolina Medical Society—Forty-First Annual Meeting	269
South Carolina Medical Association	274
Notes of Practice	276
Miscellaneous Items	278
Reading Notices	2 3

Abstracts :

The Safety of using Strong Carbolic Acid, 24; The Surgery of the Ureters, 257; Reading as a Therapeutic Agent, 257; Cerebral Localization, 258; Certain Erroneous Principles and Methods in Gynæcology, 258; Prevention of Tuberculosis, 259; The Secretion of Human Milk, 260; Enterectomy by Paul's Method, 261; Atropine in Morphinismus, 262.

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Index of Advertisers.

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Fairchild Bros. & Foster.....	Cover 1	Codliver Glycerine Co.....	16
Parke Davis & Co	" 1	University College of Medicine.....	17
Pope Mfg. Co	" 2	Battle Creek Sanitarium.....	18
Mr. Fellow	" 3	E. A. Yarnall Co.....	18
N. Y. Pharmacal Co	" 4	C. F. Boehringer & Soehne	19
W. H. Schieffelin & Co	1	Wilmington City Hospital.....	20
J. Watkins Lee.....	{ 2	Scott & Bowne.....	21
	{ 3	H. O. Hyatt, M. D	21
Sharp & Dohme.....	4	Lambert Pharmacal Co.....	22
Henry K. Wampole & Co.....	5	Mariani & Co.....	23
Summer School of Medicine.....	6	Walker-Green Chemical Co.....	23
Purcell, Ladd & Co.....	7	Special Offer.....	23
Virginia Pharmacal Co.....	7	Thos. F. Goode.....	24
ueen & Co	8	N. Y. Pharmaceutical Co.....	25
Vaccine Virus.....	8	Bartlett, Garvens & Co.....	25
Antikamnia Chemical Co	8	Harris Lithia Water.....	26
J. S. Tyree	9	Maltine Mfg. Co.....	27
H. A. Kaysan.....	9	Sneed & Co.....	27
The Doliber Goodale Co	10	Dios Chemical Co.....	28
Wm R. Warner & Co	11	McIntosh Battery Co.....	28
Peacock Chemical Co—Sultan Drug Co.....	12	Cal. Fig Syrup Co.....	29
Battle & Co	13	Rio Chemical Co	30
The Sanitarian	13	Seaboard Air Line ..	31
Od Chemical Co	14	Daggett Table Co	32
Julius Fehr, M. D.....	14	Listoi Chemical Co.....	33
Kentucky School of Medicine	15	Angier Chemical Co	34
Bellevue Hospital Medical College	15	E. V. Richards.....	34
Chattanooga Medical School.....	15	Atlantic View.....	35
University of North Carolina—Med Dept ..	16	Svapnia.....	36
North Carolina Medical College.....	16	C. N. Crittenton.....	36
St. Luke's Home	16		

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No. 6.

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"THE LAND OF THE SKY."

FLAT ROCK AND HENDERSONVILLE, NORTH CAROLINA, AS HEALTH RESORTS.

BY ALLARD MEMMINGER, M.D., Professor of Chemistry and of Hygiene in the State Medical College of South Carolina, Visiting Physician in the City Hospital of Charleston, etc., etc.

As the influence of climate on Phthisis and its allied affections has so engrossed the attention of professional men, and especially the climate of Western North Carolina, it may not be out of place to bring to the attention of this JOURNAL a little summer resort as yet unknown, but which I hope ere long will be as conspicuous in the eyes of the public and those seeking a health resort as Asheville and her environs—I refer to Flat Rock and Hendersonville, North Carolina, situated on the Asheville and Spartanburg Railroad, which can be reached from New York in twenty-seven

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Health resorts are divisible into two great classes: First, those which depend for their celebrity on some particular beneficial characteristic of climate suitable for certain maladies; and, secondly, those which owe their popularity to mineral waters. To the first class Flat Rock and Hendersonville belong, and their climate may be justly characterized as bracing and sedative, neither exciting in its action nor depressing in its effect.

The characterization which I have

just given is formed, I may say, upon a consideration of all the various conditions which modify, and, indeed, change, the climate of any particular place, to wit, local situation, altitude, the proximity of hills and mountains, population, rivers, soil, temperature, rainfall, prevailing winds and sunshine. This classification must, therefore, in a great measure, be arbitrary, and can only give thus the leading characteristics of the climate as compared to other places in this country. To find a climate or place embracing all the attributes pertaining to a perfect health resort is, indeed, an impossible undertaking; for in this world man, by his ordinary, and, indeed, I may add, necessary modes of life, must, in a great degree, even modify those qualities of climate which, from a theoretical point of view, are perfect in the eye of the hygienist. The condition of things attainable on such a theoretic basis is only possible in the case of a Robinson Crusoe, and is immediately spoiled when his Man Friday makes his appearance.

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Flat Rock, North Carolina, is situated on the Asheville and Spartanburg Railroad, 2,226 feet above the level of the sea, 49 miles from Spartanburg, South

Carolina, and 22 miles from Asheville North Carolina. It is surrounded by mountain ranges, which are at distances sufficient to keep off and break the cold blasts of winter, and not sufficiently near to create draughts or to change the number of sunshine hours in our short winter days. The average height of these mountains may be placed at one thousand feet, although many peaks rear their proud and lofty heads to twice that height.

Two miles from this favored spot lies Hendersonville, a picturesque little village of 1,000 or more inhabitants, but which in summer time, for a short while, contains as many more. This town has, in my opinion, more claims to being a health resort than is generally conceded to it by the public. It is situated on the same plateau as is Flat Rock, and has a similar climate and soil, barring, of course, the impurities incident to a larger population and a smaller area.

Surrounding this village are the summer residences of wealthy families which, having determined to make this part of North Carolina their summer home, have located on the boundaries of the village, so as to enjoy the advantages incident to being near town. Taking all things into consideration, the climate and soil of these two places are alike. Situated thus between mountains which are sufficiently remote not to be obstructive, Flat Rock offers to the invalid many advantages over places situated more in the heart of the mountains, and which do not offer so many facilities for excursions by foot and by carriage. The drives are good, the walks well shaded and the roads so graded, or rather, the natural grades are so moderate, that those recovering from severe attacks of illness find it no hard task to take either a morning stroll or an evening walk.

This resort, as before said, being originally planned by wealthy residents of the seaboard, has naturally partaken at all times of their refinements: and could this locality be brought more conspicuously into notice, I am quite sure that to place a large and fine hotel in this "Land of the Sky" would be an enterprise likely to be crowned with financial success.

Situated in the heart of this picturesque little settlement, almost on the banks, and in view of, one of the most beautiful of artificial lakes, stands the church, Episcopal, perchance, but in which all denominations meet and pour forth their humble prayers on Sunday, devoutly kneeling. Around this church stand the sentinels of the past, which in numbers show that the angel Azrael has dealt most kindly with this little flock.

The geologic formation of this place belongs to the Eozoic period and comprises the Huronian, Labradorian and Laurentian systems. The soil is sterile and unfertile, and the drinking water is as free from impurities as the soil is free from fertilizing ingredients; the springs are bold, cold, sparkling and as clear as crystal, and the wells, which I have repeatedly seen sunk, and of which I have more frequently drunk, may be characterized as good and wholesome drinking water, free from lime and magnesia, and vieing in excellency with the springs just mentioned.

It seems to me, in view of these facts, that diseases contracted in this section can never be fairly contributed to emanations from the soil or to the character of the water used for drinking purposes. On the contrary, in every case of typhoid fever or kindred "filth" affections, which has come under my notice, the cause has been clearly traceable either to defective drainage and a general and total disregard of sanitary laws, or else to

water pollution. If we glance a moment at the climatological conditions of this place, I think we may safely say that it is entitled to as high a place in our estimation as a health resort as is Asheville, 22 miles distant. This is not because it is peculiarly exempt from moisture for the whole year—which I have always doubted was true of Asheville and Western North Carolina in general—but from the fact that the other conditions which go to make up a good climate and safe health resort are fully attained, namely, a dry soil with low water level, small fluctuations in the ground water, good mean temperature for the year, plenty of sunshine, a sufficiency of ozone and *no emanations* from the soil which are *prejudicial* to health.

I do not mean to say, as some have said, nor to be understood as saying, that this climate contains *all* that is essential for all classes and cases of consumption; but I do mean to say that in those cases of phthisis in which the absolute amount of moisture is not the main consideration, but in which plenty of out door exercise in the sunshine and in an air of an exhilarating and stimulating character free from dust and organic impurities is needed, a most beneficial effect may be expected from residing here or in some place similarly situated.

I must also take exception to the assertion, sometimes made, that consumption is not found in Western North Carolina. I have frequently met with it here, as must inevitably be the case elsewhere, if we take the modern view of the pathology of this disease. I also doubt that it will always be asserted in this section, although I agree that many cases of catarrhal phthisis are improved and rendered less severe here. The class of cases which I have so far seen most benefited have been of the catarrhal type and in the first stages. I can

therefore affirm, from a general and extended experience of many years, that an abundant supply of sunshine, accompanied by an exhilarating, soft and bracing atmosphere, free of almost all kinds of impurities, is attained in this latitude. When, therefore, these adjuvants are desired, either in cases of consumption or in any other affections, I do not think that more could be accomplished, save in the far West or in Arabia, more distant still.

I append now a tabular report of the meteorological condition of this place and of some others, and I think, after a careful review of the figures, that we can safely say *none* are entitled to the name of dry climate save Denver and Cheyenne. In many respects the Flat Rock summer climate corresponds to the Jacksonville winter climate, enjoying most of her advantages and none of the disadvantages incident to winter.

The altitude, then, together with the moisture, renders the air soft and balmy, and we have thus the good effects of a Florida climate, coupled with the exhilarating and tonic action of the air of an elevated region. The nights are cool and pleasant, and the moisture, which, with the increase of barometric pressure at a lower level, would render the air close and heavy, is at this altitude changed into a light and soft atmosphere, soothing, invigorating and strengthening the nervous system instead of debilitating and reducing it.

Having given thus, in a succinct manner, my reasons for regarding this place as so important a resort for the invalid, I deem it best to close by stating also the different classes of ailments which will be most benefited by a sojourn there.

ANÆMIA,

or that impoverished condition of the blood which arises from over-work, anx-

iety, bad sanitary surroundings, and in women from excessive nursing or mal-assimilation of food, will be much benefited by a sojourn at this resort, if, together with the climatic advantages, iron be prescribed.

CONSUMPTION.

If the malady be attended with dyspeptic symptoms dependent on an inactive state of the liver, much benefit will be derived from the climate. I may add that I have often seen great relief from hemoptisis, when the cause of hemorrhage was due to the stagnation of blood in the portal system.

ASTHMA.

If the affection is primarily of nervous origin, much benefit will accrue.

CHLOROSIS OR GREEN SICKNESS,

a malady characterized by great anæmia, and often attacking young women about the age of puberty, will be much benefited, if while at this place the iron waters, most notably those from the Lithia Springs of Virginia, be prescribed.

CONSTIPATION.

This affection, when brought about by a sluggish condition of the portal system, and not dependent on partial paralysis of the muscular coats of the intestines, will be cured, if, together with the specific climatic advantages, exercise in the open air be freely indulged in.

DIABETES AND BRIGHT'S DISEASE.

In the first stages of these maladies much good will be experienced by a sojourn in this land; in the more advanced stages of these diseases a somewhat relaxing climate is desirable.

DYSENTERY AND DIARRHŒA.

These maladies, when caused by mias-

matic influences, immediately improve in this climate without the aid of medicine; when the trouble, however, is caused by either portal congestion or a tendency to fermentation in the intestines, suitable medicines, coupled with the climate, will effect a cure. If there be, as is sometimes the case, much nervous irritability, this sedative characteristic of the climate will relieve the same.

LIVER AFFECTIONS, NEURALGIC AND NERVOUS AFFECTIONS

are all much benefited by the two factors of this climate, namely, stimulation with sedation; the first element affecting in a beneficial manner the liver engorgement, and the sedative element relieving all pain depending on nervous excitability.

TEETHING CHILDREN.

Children at the period of dentition do especially well if the main cause of difficulty is dependent on excessive erethism; when brought from a distant place, more southerly situated, they may at first appear too highly stimulated; if this, however, be counteracted by the judicious use of the bromides, why then the same improvement follows.

WOMB DISEASES AND FEMALE COMPLAINTS.

When these troubles are brought about by the same causes which induce anæmia, a stay at this place, together with the same liberal use of iron, will surely improve or else bring about a cure.

Thus I have mapped out a general outline of the particular classes of diseases which will be most benefited in this locality; and imperfect as I know it is, I shall be fully requited if by it I

become, through you, the means of inducing any so suffering to turn their steps towards this beautiful and justly famed "Land of the Sky."

TABLE OF COMPARISON.

CITIES AND TOWNS.	Mean Annual Temperature.	Highest Temperature.	Lowest Temperature.	Mean relative humidity.	Average rain fall in inches.	Mean Maximum Temperature.	Mean Minimum Temperature.	No. of Clear days.
Flat Rock and Hendersonville.....	62.5	87.5	30°	*77.8	40.14
Asheville.....	54.1	94.0	6°	70.3	42.55	64.3	46.0	259.
Charlotte.....	60.6	101.0	5°	66.7	54.10	69.1	51.9	251.8
Charleston.....	66.2	103.0	13°	73.1	59.91	73.1	60.2	274.8
Jacksonville.....	69.5	104.0	19°	71.2	55.31	77.9	62.2	280.0
Atlanta.....	61.7	99.4	13°	67.4	56.23	69.4	52.9	260.0
Denver.....	49.3	105.0	29°	46.5	14.99	61.5	37.4	309.8
Cheyenne.....	44.1	100.5	38°	52.2	11.07	56.2	30.9	302.9

*The mean relative humidity of Flat Rock is too high, being calculated from too few months; the rainfall is also possibly a little too low for same reasons.
 These figures were taken at Flat Rock, 2,226 feet; Asheville, 2,229; Charlotte, 878; Charleston, 52; Jacksonville, 43; Atlanta, 1,123; Denver, 5,304; Cheyenne, 6,105.

THE DOSE OF ATROPINE.—The *Journal de clinique et de thérapeutique infantiles* remarks that atropine should not be used internally in children under 15 months old. Of a 1-to-1,000 solution of the sulphate in distilled water, from two to five drops may be given in the course of 24 hours to a child between 15 months and 3 years old, from five to ten drops to a child between 3 and 5 years old, and from ten to twenty drops to one between 5 and 10 or 12 years old.—*N. Y. Med. Jour.*

TYPHOID FEVER.

By J. L. NAPIER, M.D., Blenheim, S. C.

(Read before the South Carolina Medical Association, April 25, 1894.)

As typhoid fever is of common occurrence, I thought a short paper on the subject would not be uninteresting, especially if it should be the means of bringing out the views of others.

That typhoid fever is caused by the bacillus of Eberth is not as yet fully conceded by the profession. The experiments of Eberth, Klebs and a host of others, point very conclusively to that end, however. That the poison is carried into the system by absorption from the air-passages and gastro-intestinal canal, is conceded by all, I believe. That the typhoid bacilli circulate in the blood, has not as yet been demonstrated. If they do not, why do the liver, spleen, kidneys, and, in fact, the whole glandular system, become so much involved and their functions so much deranged?

Karmen, as the result of a bacteriological study of a fatal case of enteric fever, with acute meningitis, concludes that the sole infecting agent producing the meningitis was Eberth's bacillus. Hausehalter, in a fatal case, complicated with phlegmasia alba dolens, made a bacteriological study of a fibrinous clot found in the left crural vein, also the spleen and liver, disclosing the presence exclusively of typhoid bacilli. The case of an infant which came under my own observation, whose mother had a well-marked case of typhoid fever of 10 day's duration before its birth, I think goes to prove that the poison circulates in the blood. The infant lived five days, had fever from its birth, with dry mouth and tongue, diarrhœa and a rash on its body. If this infant had typhoid fever, which I think it had, the poison was

transmitted from the mother through the circulation.

If typhoid fever is dependent upon a contagium vivum for its origin and continuance and the poison is absorbed into the blood, how can you but reach and control it and its effects? By an antiseptic that readily enters and circulates in the blood.

Of course no one would expect to fill the circulation with any antiseptic in sufficient quantity to destroy the bacilli, but by the constant, continuous use of an antiseptic that does not endanger the life of the patient, you weaken the vitality and lessen the multiplicity of the bacilli, thereby lessening their virulence. If, by the use of antiseptics, you can control the increase of the bacilli, in the same ratio you lessen the danger of hyperæmia and its accompanying ills, also distension of the bowels from muscular relaxation; these conditions being caused by the paralyzing effect of an excess of poison affecting the heat-controlling centers and the ganglionic nervous system.

Control the multiplication of the poison by the use of antiseptics, both local and general, and you will not have its effects—high temperature, etc.—to combat.

I have for several years used a strictly antiseptic treatment, both local and general, in all my cases of fever, and since doing so the result has been very gratifying to myself and beneficial to my patients.

In beginning the treatment of a case of fever there is no better plan than to give a full dose of calomel, so as to

thoroughly move the bowels; you not only get the antiseptic effects of the calomel, but the bile also, and, besides, the bowels are freed from fermenting and poisonous matter. As soon as the calomel acts, which it generally does in a short while, I begin with $2\frac{1}{2}$ to 3 grs. of sulpho-carbolate zinc every three hours; I keep up the zinc continuously from the beginning of treatment until convalescence is well established, which I consider of prime importance; if there is diarrhœa, I add 5 grs. of salol or salicylate bismuth, or both, to each dose, until this condition is controlled. When the fever runs above 102° I give $2\frac{1}{2}$ grs. of phenacetin every three hours, and, if necessary, use cold applications in addition until it is controlled. I never use large doses of phenacetin on account of the too profuse diaphoresis produced by it. I have never seen any but beneficial effects from repeated small doses of it.

There are some points in favor of sulpho-carbolate of zinc to which I wish to draw especial attention: Being very soluble and of not very disagreeable taste, it is easily administered; it is absorbed readily into the circulation, and is one of the most active antiseptics we have. Another point in its favor is, it can be given indefinitely without danger to the patient; it is an emetic if given in too large doses, which should be guarded against.

By the use of thymol, naphthol, salicylate bismuth, etc., you reach the local manifestation and any fermentation in the bowel. By the use of sulpho-carbolate zinc, *continuously given*, you reach the poison that has entered the circulation and been carried to the different organs of the body. When there is tympanitis from relaxation of the muscular coat of the bowel, caused by an excess of poison depressing the nervous system, it can best be met by the use of

such tonics and stimulants as strychnia and belladonna. In this condition, if there is much ulceration, with dry tongue and scant urine, spirits turpentine and tincture digitalis, 10 drops each, and, if necessary, turpentine stupes to the abdomen, will be found very beneficial. Turpentine acts as a very powerful glandular stimulant, and, besides, it has very decided antiseptic properties. I allow my patients to drink all the cold water they wish, especially if there is much thirst and fever; it aids the kidneys in performing their functions and adds very much to the comfort of the patient. I have almost abandoned the use of whiskey; I get better results from strychnia and digitalis.

Since adopting the treatment outlined above, as a general thing, I find the third week of fever a mere getting well, with temperature ranging from 100° to normal and returning appetite.

I have treated 100 cases of typhoid fever since adopting an antiseptic plan with only one death—that of a young man whose case was complicated with abscess of the liver and who did not come under my treatment until during the second week of fever. Among the number treated were three pregnant women, all of whom miscarried between the fifth month and full term. The mothers recovered, the infants dying.

In these cases I used intra-uterine and vaginal antiseptic washes.

Under this plan of treatment I have had only one relapse and one case of hemorrhage. Before adopting it I had quite a large per cent. of both relapses and hemorrhages and more deaths than I cared to witness.

Those who have never tried a strictly antiseptic treatment, both local and general—*strictly adhered to from beginning to end of treatment*—will be agreeably surprised at the result.

I confine my patients to a fluid diet—milk, fresh meat extracts, raw eggs, etc.

ANALYSIS OF THE SIXTEENTH YEAR'S ANNUAL REPORT OF THE PRESBYTERIAN EYE, EAR AND THROAT CHARITY HOSPITAL OF BALTIMORE.

BY JULIAN J. CHISOLM, M.D., LL.D., Professor of Diseases of the Eye and Ear in the University of Maryland, and Surgeon-in-Chief to the Presbyterian Eye, Ear and Throat Charity Hospital.

The free dispensary work for the year 1893 has been large; 10,000 persons have been treated, with an aggregate attendance of 31,655. In analyzing the work I find much of interest and worthy of note: 1,260 affections of the eye-lids were treated. While squeezing out the lymph masses is found an excellent practice in trachomatous cases, the jequirity bean has not been discarded. In pannus I find it more efficacious than any other treatment. My mode of application is to place a little of the powdered jequirity on the conjunctival surface. In the course of a few hours all the peculiar phenomena belonging to the local irritation of the drug appear, and usually accompanied by so much pain as to require morphine internally for its relief. In 24 hours the lids are œdematous, and the conjunctiva and cornea are more or less covered with the characteristic greenish, yellow exudate. This specific inflammation is of short duration. In three or four days convalescence starts, and steadily continues, until a very marked improvement shows itself in the vision. The accidents which have occurred in the experience of other practitioners I have not met with, and hence I apply the powder with confidence, expecting permanent good results from it.

In the treatment of tarsal tumors the practice of the dispensary is to open them from the inner side of the lid, and, by means of a sharp steel curette, scrape off the epithelial lining of the sac. Blood takes the place of the gland secretion,

which makes the tumor as large when the operation is finished as it was before the sac was opened. The blood swelling, however, undergoes rapid absorption. If the inner face of the sac has been properly scraped, within ten days the tumor disappears, leaving no trace of its former presence.

In affections of the eye muscles (310 cases) there has been no peculiar method of treatment followed, except the regular routine one of completely dividing the muscle when an operation was deemed necessary.

Affections of the conjunctiva, 2,454 cases. Although nitrate of silver solutions are found essential for the successful treatment of purulent ophthalmia and for severe cases of catarrhal inflammation, this solution is never given to patients to be used by them at their own homes. The strength of the solution is 1 p. c. It is never used more frequently than once in the 24 hours, and is always applied by some member of the surgical staff, so that the effects of the previous drop can be seen at the daily visit before it is applied again. Under this cauterizing treatment, followed by the thorough cleansing of the eyes every hour in the 24 by a solution of borax, grs. 10 to the ounce, or a hydrarg. bichlor. solution, 1 to 4,000, I have never lost an eye from ophthalmia neonatorum, which was brought to the dispensary before the cornea had become implicated.

In dispensing astringents for conjunctival affections it is found very conve-

nient to color the solutions. The borax eye-drop is made pink by adding a drop of cochineal; the sulphate of zinc solution is made green by the addition of a drop of fluorescein, while the hydrarg. bichlor. is left colorless. These collyria, in such constant use in the daily working of the dispensary, are known by the patients as *pink*, *green* or *white* drops. It enables the staff to learn from the statements of the patient what local application has been used.

For corneal ulcers the galvano-cautery is found most efficacious in stopping sloughing tendencies and in promoting cicatrization. The use of the Japanese hot-box in corneal ulcers is one of the greatest comforts the hospital patients enjoy. It is a small, tight box, made of tin or copper, and about the size of the hand in length, breadth and thickness. In this box a lighted fuse of compressed charcoal is placed. A slow combustion goes on for two or three hours, sustaining a steady temperature of about 115° F. When in use the warm box is enveloped in a handkerchief folded cravatte fashion, and is tied over the painful eye, with a layer of cotton wadding intervening. In hospital language this box is called a "pain-killer," because it soothes a painful eye in a marvellous manner, which only the continuous application of heat will do. The hot-box is in constant use for all painful eyes, whether from corneal, scleral or iritic inflammations. It takes the place of large doses of opium for the relief of glaucomatous suffering. In hundreds of cases, during the past five years, the hot-box has proved itself the most convenient appliance in the hospital. In Japan, where they are all made, and by the hundred of thousands, they are found in every household. It is on account of their efficiency as a domestic remedy in that country in relieving ab-

dominal, thoracic or limb pains that I was induced to use them for the eye and ear. They, with the charcoal fuses, can be purchased wherever Japanese wares are sold.

Of lens troubles 498 were entered on the hospital books for 1893, which makes 5,615 cataract patients seen in the dispensary since the opening of the Hospital, 16 years ago; the surgical staff has therefore had a very large experience in the treatment of cataracts.

During the past year there were 178 operations; of these 123 were cataract extractions; 36 with iridectomy and 87 without. During the previous year there were only 27 extractions with iridectomy and 92 without. For the year 1894 extractions with iridectomy will be more numerous, showing a growing tendency in the belief that there is more safety with an iridectomy. Notwithstanding every care in the after treatment of simple extractions a certain percentage of iritic hernias will occur. This is the experience of every operator, whether in Europe or America, regardless of the after-treatment which he may adopt. Last year, after 70 simple extractions which I myself made, there were 5 cases of prolapse of iris, or 7 p. c. of such accidents. When it is remembered that for the last 5 years I have only closed the eye operated upon, and leave my patients to move about their room, or lie in bed, as they prefer, these results compare most favorably with the percentage of accidents in the clinics of the most skillful European ophthalmic surgeons, most of whom practice the most rigid restraints on the bodies of their cataract patients, keeping them in dark rooms, in bed, on their backs, and with both eyes tied up. When such hernias occur I remove the protrusion of iris early. Whilst I have not lost a single eye from this complication, convales-

cence is certainly retarded, and hence I consider such an accident very undesirable. I confess that I do not know to what to attribute this accident, and therefore I do not know how to prevent it. In illustration I will give extracts from the history of two gentlemen who were recently operated upon for cataract without iridectomy. Both were smooth extractions, leaving clean central pupils. Only one eye in each case was involved in the blindness. Under my method of dressing only the eye operated upon was closed, so that each had an eye left uncovered for use. They were healthy men, between 60 and 70 years of age. They were operated upon within a few minutes of each other, and occupied contiguous rooms in the Hospital. One gentleman was of the lethargic type. He went to sleep soon after the operation and had an uninterrupted nap of several hours. He seemed to have a special gift for sleeping at any and all times. The other had a severe attack of irritability of the neck of the bladder, which came on during the evening of the day of operation. For many hours it kept him passing urine every few minutes, accompanied by intense pain and severe straining.

When I visited the Hospital the next day I found him still suffering, notwithstanding doses of morphia which my resident physician had administered. I ordered at once a large dose of chloral hydrate, which soon brought relief from pain and with it sleep.

The patient who had spent the first night after cataract extraction in walking the floor and straining every few minutes to urinate, left the Hospital with a perfect, free, central pupil. The other, who led the most passive of lives, had a large iritic hernia which I had to remove. When I do a small iridectomy I have no anxiety for the patient and I

expect a rapid convalescence with a perfect result.

In lost and painful eyes condemned for removal I still perform optico-ciliary neurotomy in preference to enucleation, if the eye is good-looking enough to be retained. I have never seen harm come from this course, but, on the contrary, have been able to retain a painless eye to the decided comfort of many patients. The only trouble that I have found from the primary neurotomy is that, in some cases, the eye-pains return, and then the more radical removal of the painful eye-ball had to be done. The attempt at saving the eye-ball does not make the final removal more dangerous nor more difficult. In treating this class of cases at the Hospital I find 86 optico-ciliary neurotomies standing against 544 enucleations.

Now and then a paragraph appears in some country newspaper stating that some oculist, after recommending the removal of an eye lost by injury, has taken out the wrong eye when the patient was under the effects of chloroform. Such a mistake, I do not think, has ever happened in the history of ophthalmic surgery. Such a statement can only be the mental creation of some irresponsible person, employed to manufacture items for the newspaper, quite indifferent to the anxiety produced in the minds of the community of working people whose pursuits expose them to eye accidents. Such reports, when brought to the notice of medical men, ought to be denounced, unhesitatingly, as malicious productions, without any foundation of truth whatever.

All conditions of flatulence, especially gastric flatulence, Dr. Salinger says, will be found to be greatly benefited by dermatol.—*The College and Clinical Record*.

WHY CHRONIC URETHRITIS IS ORDINARILY DIFFICULT OF CURE AND AN EFFICACIOUS METHOD OF CURING IT.

BY BRANSFORD LEWIS, M.D., St. Louis, Lecturer on Genito-Urinary Surgery and Venereal Diseases, Missouri Medical College; Consulting Genito-Urinary Surgeon to the Baptist Sanitarium; Consultant in Genito-Urinary Surgery to the Missouri Pacific Hospital, the City Hospital, the Female Hospital, and to St. Mary's Infirmary, St. Louis; member of the American Association of Genito-Urinary Surgeons, etc.

(Read before the Tri-State Medical Society of Iowa, Illinois and Missouri, at Kansas City, Mo., April 4th, 1894.)

It is not intended in the present paper to add to the already well-stocked graveyards for deceased sure-cure gonorrhœa prescriptions, nor to enlarge the list of discarded specifics for urethral inflammation—a list that has been growing since therapeutic history began. In other words, I shall not attempt to offer or commend any new or wonderful drug or combination of drugs, with the assurance that they will assist in suppressing that *bête noir* of the conscientious and would-be successful practitioner, chronic clap or gleet. But I shall venture to place before you what I consider to be a rational and efficient *method* of treating it, based on views as to its pathology that are yet in the probationary stage of acceptance—though I am firmly convinced of their correctness.

In order to present these the more clearly, I shall first refer to an anatomical arrangement of the urethra with which you are doubtless familiar, but a correct appreciation of which is essential to the propositions that follow.

At a point just posterior (proximal) to the triangular ligament, namely, at its membranous portion, the urethra is divided into two portions, an anterior

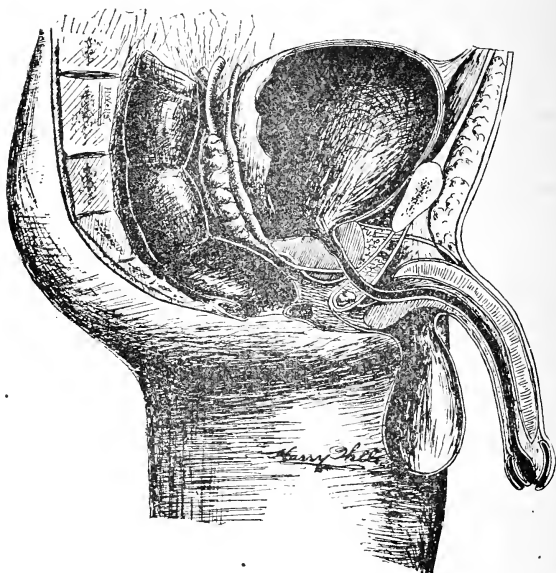
and a posterior portion, by the compressor urethræ muscle, called also the "cut-off" muscle, because it occasions that division. We may demonstrate its effects by injecting water into the urethra. If it be deposited in front of the "cut-off" muscle, the water, prevented from flowing backwards by the closure of that muscle, flows forwards and out of the meatus urethræ. If, on the other hand, it be deposited *behind* the "cut-off" muscle, it flows backwards into the bladder.

Pathological secretions follow the same rule. Pus formed in front of the "cut-off" muscle, i. e., in the anterior urethra, flows forwards, and, if of sufficient quantity, out of the meatus, showing as a discharge; while pus formed behind this muscle, i. e., in the posterior urethra, is prevented from flowing forwards by that muscle, and, therefore, flows backwards into the bladder. It is readily apparent, then, that a man may have an active gonorrhœa in the posterior urethra without a sign of a discharge from the meatus. And this, by the way, is a condition of uncomputable frequency—a condition that might be demonstrated, indisputably, on the vast

majority of our good citizens who are able to "cure" their claps with three-day prescriptions, as well as on a large portion who do not admit having even evanescent attacks, and consider that they have long since been permanently cured.

This digression only serves to accentuate the every-day, practical nature of this fact.

If the above-mentioned anatomical and physiological arrangements be correct, as described—and they are universally admitted to be so by those who



have made a special study of this branch of surgery—the futility of attempting to treat posterior urethral inflammation topically by means of the ordinary clapsyringe is also readily seen. The injection from such a syringe reaches only the inflamed membrane of the anterior urethra, is prevented from reaching the posterior inflamed membrane by the contraction of the same "cut-off" muscle above alluded to. The anterior urethra receives treatment, the posterior does not. The anterior inflammation may be materially benefited or approximately cured by such treatment, but the

posterior inflammation is left to shift for itself—away back in a secluded part of the canal, that lacks a means for drainage, a mode of getting rid of its own noxious and pathological products, furnishing almost ideally perfect conditions, therefore, for indefinite prolongation of the suppurative process, whether it be from gonorrhœal or other form of infection.

Under such manner of treatment—and it must be admitted that this is the one ordinarily adopted—suppose that the external evidences of the disease do improve, the discharge ceases and the

patient announces himself "cured." Here behind the "cut-off" muscle is a part of the inflamed membrane that has not yet received treatment, and is undoubtedly not yet cured. When the patient discontinues his injections pus is washed by the urine from the posterior over the anterior (and supposedly cured) membrane, re-inoculation takes place and the discharge is again set up. Again he resorts to his injection—or perhaps gets a new one from his doctor—the discharge is again reduced and the same routine is repeated. He says that though his doctor does him good each time, he does not give him a *permanent* cure, and he may seek some one who has also a favorite medicine or combination, and again practically the same result is attained, namely, stoppage of the discharge, followed by its renewal on discontinuing treatment, or when the patient goes on a spree or has frequent intercourse, or otherwise deports himself so as to re-excite the partially cured inflammation.

The secluded posterior urethra stands, then, a constant source of re-infection, of renewed claps—however short-lived each of them may be—and an unceasing menace to the tranquility of mind of the oft-affected patient, as well as to the health and happiness of his home, if he be a married man.

The importance of infection of the posterior urethra in gonorrhœa, its sequences and treatment is not, therefore, difficult of appreciation, and the necessary deduction is that, *when posterior infection does occur, a firmly-established cure cannot be hoped for unless we adopt treatment that reaches the posterior inflammation as well as that situated in the anterior urethra.*

I doubt not that the larger part of the Tri-State Medical Society is in accord with this much of my paper; but I have

misgivings as to the unanimity with which they will accept the remainder. I must admit that it is in opposition to the teachings of current text-books; nevertheless the clinic is sometimes a better teacher than the text-book, and that is the source of my belief in this instance. And I hope that the members of this Society, by critical observation on the points involved, will investigate for themselves and assist in the development of a feature in the pathology of gonorrhœa which, I am firmly convinced, will have as great a bearing on the treatment of the disease as have those already mentioned, namely, the necessity of using special means for administering treatment to the posterior urethra when that portion is involved.

From what has gone before, it will be allowed that when posterior urethritis occurs in a case of gonorrhœa, it has an important bearing in prolonging that particular case, and that it must receive treatment before a cure can be expected. Consequently, if posterior inflammation occurs in *many* cases of urethritis or clap, it is of great importance in prolonging just so many cases of the disease, and in just so many cases will it be found necessary to treat the posterior urethra in order to obtain a cure.

In writing on the frequency with which involvement of the posterior urethra occurs in inflammations, various text-book authors have given various estimates—some have said that it occurred in 10 p. c. of all cases, some 18 p. c., others 25 p. c., and still others have claimed for it as high a percentage as 30—implying, therefore, that in a third of all cases of clap the posterior urethra became involved and required treatment for a well-established cure. My own clinical investigations, made during the last two years, and involving about 160 cases of urethritis, acute and chronic,

gonorrhœal and non-gonorrhœal, have compelled the belief that these estimates are far too low, that, instead of the posterior involvement being an exception—a “complication,” as it is called—occurring in the minority of cases, as thus indicated, it is a common feature, a natural feature, *no* complication, and, in fact, an almost invariable occurrence in urethrites of any degree of severity or persistence, and that, with *chronic* urethritis, it may be said to be universal. In other words, my 160 cases so studied indicate for acute cases a percentage of posterior urethritis of about 94, and in chronic cases a percentage upwards of 98. Therefore, if we adopt as correct the foregoing reasoning as a basis for determining the necessities in treatment, we are reduced to the conclusion that the posterior urethra should be treated in from 94 to 98 p. c. of all cases in practice; expressing at once the importance which posterior inflammation assumes in the prolongation of gonorrhœas.

I am glad to be able educe reliable testimony to support me in these apparently radical claims. Other observers (chiefly German) have, in the last year or so, reported the results of similar investigations, as follows: Jadassohn found posterior urethritis in 142 out of 163 cases of gonorrhœa, making a percentage of 87.7; Rona found it in 79.7 p. c. of his cases; Letzel in 92.5 p. c.; Eraud in 80 p. c. All of which affirms that the posterior infection is not an exceptional occurrence or a complication, but is a *natural phenomenon in the course of gonorrhœa*: and re-enforces the necessity of being prepared to treat the posterior, as well as the anterior urethra, in every case of severe or prolonged gonorrhœa. That is the point on which I would lay most stress in commending a plan for the treatment of this disease.

The particular remedy used is not nearly of so great importance as the *application* of that remedy. And that, by the way, accounts largely for the excessive number of sure-cure clap drugs and prescriptions that have been tested and praised by some, tried and found wanting by others. It seems to me probable that, with the adoption of the views herein presented, a half-dozen or so of drugs would cover the necessities of gonorrhœal therapeutic resources.

Resolved, then, if you please, that, in the absence of such morbid factors as urethral stricture, narrow meatus, etc.—whose importance, when present, I would certainly hesitate to belittle—in at least 90 out of 100 cases of gonorrhœa it is necessary to treat the posterior urethra. How may that be accomplished?

In the large majority of instances these two devices, the catheter and bulb for zinc sulphate irrigations, and the deep urethral syringe for argentic nitrate injections, suffice. Solutions of graded strengths of each of these remedies are used, and after fairly well prescribed rules.

After the acute symptoms have been subdued by time or judicious treatment; that is, in the condition shown by most cases of chronic urethritis—the method of treatment is inaugurated with the use of the milder of the two remedies, an irrigation of zinc sulphate solution, in the strength of 1-20 p. c. The patient having first urinated, with glycerine lubrication a small, soft rubber catheter (No. 12 Fr.) is introduced into the urethra until its eye is placed proximal to the “cut-off” muscle, i. e., within the posterior urethra; the bulb-syringe, holding 8 ounces of the solution, is applied to the distal end of the catheter and three-fourths of its contents are injected into the posterior urethra, whose membrane is thus thoroughly bathed with

the solution as it runs back into the bladder. The catheter is then withdrawn for an inch or two, till its eye is external to the "cut-off" muscle, whereupon the remaining fourth is injected; and, following the rule already spoken

of, it runs forward alongside the catheter, irrigating the anterior urethra. Both the anterior and posterior urethra have then been irrigated with the solution of the prescribed strength. The patient is told to stand up and pass out what



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we have injected into his bladder; and in doing so he is accomplishing another irrigation of his entire urethra. Usually a slight burning follows this—a feeling as though there were still more of the fluid to be expelled, indicating the irritation of the medicine on the inflamed posterior urethral membrane. A day later the irrigation is repeated; two days after that, another repetition, but with added strength to the solution, making it, say, $\frac{1}{4}$ p. c.; two days later, $\frac{1}{4}$ p. c.

and so on until $2\frac{1}{2}$ p. c. is reached, when usually the discharge, at first present, has disappeared, and most of the high degree of tenderness has been relieved. The urethra is then ready for the adoption of the second of the two series of treatments—the deep injections of argentic nitrate.

After filling an Ultzmann syringe such as this with a $\frac{1}{4}$ p. c. solution of this drug, the catheter-stem is lubricated with glycerine, introduced until its inner



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end has reached the deep urethra—indicated by the 45-degree inclination of the syringe. The piston is now depressed at the same time that the syringe is being withdrawn, spreading the solution over the entire urethral tract. This, also, awakens some transient reaction usually making the patient feel like uri-

nating. It is well, therefore, for him to sit down for awhile, when it passes off readily.

This form of treatment is repeated every other day, for a time, with progressively increasing strength of solutions; usually it will not be found necessary to go above 3 p. c. With improve-

ment in its condition, the urethra tolerates the stronger solutions readily.

Such improvement is to be noted by watching the gradual disappearance of pus from the urine. I have such patients bring specimens of their first morning's urine in two bottles at each visit. The first bottle denotes the condition of the anterior urethra, the second that of the posterior. When both become free from pus and shreds, the patient may be considered cured. It will be found in practice, however, that a few shreds will be apt to show in the first portion occasionally, long after it is justifiable to discontinue treatment. If the shreds are composed mainly of mucus, with only a few pus corpuscles, they need not be regarded as indicating continuation of active measures, other things being favorable.

Assuredly, the patient must maintain hygienic and conservative behavior for some time after treatment is left off; indiscretions of various sorts are prone to re-awaken inflammatory processes until the tissues regain strength and the habit of health.

In summing up the value of this method of treatment for chronic urethritis, I do not wish to make exaggerated claims for its infallibility. It is true that though the pathological groundwork may be as related, certain cases prove rebellious to all topical measures, and they must be met in some other way. If tuberculous infection be present, for instance, the method is directly contra-indicated. But these exceptions do not invalidate the therapeutic deductions above indicated, which have proved extremely serviceable in my practice.

CEREBRAL ABSCESS IN AN INFANT.

By C. G. NICHOLS, M.D., Roxboro, N. C.

Read before the Person County, N. C., Medical Society, March 5th, 1894.

On the 26th day of October, 1893, I was called to attend Mrs. J. B., in a case of labor.

Upon my arrival I found the patient doing nicely. Everything indicated a hasty delivery—it was an occipito-anterior presentation, the pains were regular and severe, the os dilated to the size of a silver dollar and all the parts well relaxed. At the expiration of an hour the patient gave birth to a large, well-formed and seemingly healthy child. The family history of both parents is good. There is no syphilitic taint in either branch.

Mother and child did well until the night of November 12th—a little over

two weeks from parturition—when I was again called. I found the child suffering terribly—screaming as if some one were piercing it with a sharp-pointed instrument. It had not urinated in eighteen hours, and there had been no evacuation from the bowels during the day. The urine passed before I was summoned was described as being quite thick and of a smoky color.

My *diagnosis* was acute Bright's disease, with almost a complete suppression of urine.

Let me state just here that the child had not slept in eight or ten hours. I began my treatment by ordering a hot bath at once, which was prolonged for

en minutes, during which the little patient passed some water. After its removal from the bath the bowels moved freely, the child became quiet and slept about four hours.

I directed the child to be wrapped inannel, the room to be kept at 75° or 80° F., and prescribed nitre and corn-milk—two-thirds of the former and one of the latter—four drops every three hours in a little breast-milk. I also left direction to repeat the bath in a few hours, and, in case the child grew restless again, to administer brom. pot. with rhlo. hyd.

With the exception of less suffering, the condition had not changed next morning. An examination of the child's body revealed nothing of an abnormal character.

On the third day I found the child quite nervous, though somewhat weaker, and gave phenacetine. On the day following the nurse asked me to ascertain whether the left side was paralyzed. Examination discovered loss of motion of the left arm, swelling of the extremities with great hyperæsthesia. My diagnosis was not satisfactory, and I informed the father of such, telling him at the same time that a similar case of paralysis had never come under my observation.

I called next day and found, just

above the elbow, a large abscess, with fluctuation well defined, and, with the bistoury, extracted therefrom about half a teacupful of pus. Excepting the abscess just mentioned, although I suspected *pleuritis*, a careful examination disclosed nothing. Continuing the treatment, as indicated, I returned next day and considered the patient better; however, on the day following, there was a decided change. Just at the conjunction of the frontal and parietal bones there was a knot, and further examination showed the coronal suture to be somewhat opened, and there was no pulsation of the brain, which was hard.

Symptoms of spasm now set in, followed by slight spasms. An examination discovered that the right pleural sack was filled with pus, and also that the right chest was at least two inches larger than the left. The protruding side was hard and unyielding.

An abscess which had formed in the brain broke and discharged a large quantity of pus from the nose, after which the child sank very rapidly, and died in about an hour.

The kidneys acted well under treatment.

I desire to know what caused the accumulation of pus. Was it occasioned by the *kidneys*, or was it *pyæmia*, resulting from some other cause?

PARALYSIS FOLLOWING LABOR IN A PRIMIPARA.

By R. C. ELLIS, M.D., Shelby, N. C.

I was called on the 24th day of April, 1894, to attend Miss G., an "unfortunate girl," aged 15, who was in labor with her first child.

On my arrival I was informed that the first indication of the beginning of labor

was a copious discharge of blood followed by occasional pains. Vaginal examination revealed partial dilatation of the os and occipital presentation of the fœtus. The bones of the head overlapped each other so completely that I

informed the mother in all probability the child was dead, and my prediction was verified at the conclusion of the accouchment about five hours later. No trouble in extracting the placenta and in securing prompt contractions of the uterus. During the lying-in period everything was apparently favorable until the second day of May, when I was hastily summoned, and learned that she was suffering from an intense headache, which began 24 hours previous to my arrival, and was ushered in with a slight chill. Pulse on same day 90, temperature 98½, tongue moist, bowels regular and appetite *nil*. Gave bromide potassium and antikamnia, which partially relieved headache and restlessness. Moved bowels with fractional doses hyd. chlor., mite and bicarb. soda combined, but pain continued and became still more violent, necessitating frequent administration of hypodermatic injections of ¼ gr. sulph. morphia to the

point of constant narcotism, in order to get any relief. No suppression of lochia or abdominal tenderness, or symptoms other than those which have already been mentioned.

May 4th.—Patient still complained of cephalalgia, with tinnitus aurium, especially on the left side of head; temperature 99½, pulse 80. Quinine and morphia were given, but, on awaking from sleep, pain as before.

May 5th.—Nausea and vomiting, pain in head and paralysis in right side, pulse 72, temperature 99, tongue coated but moist, mind clear.

May 6th.—Dilatation of pupils, retention of urine, temperature 100, pulse 80, complete hemiplegia, condition semicomatose.

May 7th.—Death. Diagnosis cerebral abscess. Am I correct, or was it intracranial hemorrhage, produced by the rupture of a blood-vessel in the brain while in the agonies of parturition?

Abstracts.

THE SAFETY OF USING STRONG CARBOLIC ACID.—Dr. Oscar H. Allis (*Philadelphia Polyclinic*), in remarks before the Philadelphia Academy of Surgery, said Dr. Gardner, of Bloomsburg, has been in the habit of using carbolic acid in full strength upon the entire surface of flaps after amputation, and over the cut surface after the removal of the female breast; and primary union resulted. Such cases fully establish the principle that the strong acid combines with the fresh tissues forming a protective albuminate, a condition which renders further absorption impossible. The

same takes place when the strong acid is applied to a raw burned surface. It is not claimed that an aqueous dilution is safe when applied extensively to raw surfaces, on the contrary, the more dilute the more dangerous. Dr. J. Ewing Mears tells of a case in which bloody urine was passed by a person who had been present when the carbolic spray was used in an operation. Here systemic effects were produced by a spray so dilute that it did not irritate the lungs. In a case of washing out the thorax in the treatment of purulent pleurisy, the late Roger Keys, a most

careful and judicious physician, came near losing a patient from absorption of the dilute acid.

It will strike many of you with astonishment when I say that it would be safer to pour a gallon of pure carbolic acid into a purulent thoracic cavity than to pour in a gallon of water into which a single ounce of carbolic acid had been placed. I will even go further and say, that excess of the strong acid in a cavity such as an abscess cavity, or upon exposed tissues as a burn or fresh wound, does no harm, while excess of a dilute solution if left in a cavity, or used over an extensive raw surface, will be promptly followed by dangerous, if not fatal, toxic effects.

The diverse results obtained from the hypodermic use of the strong acid contain an important lesson. It has been said that Dr. Levis, in his use of carbolic acid in hydrocele, had cases of extensive sloughing of the scrotum; these were, however, rare; but Dr. Levis had also very many cases in which a similar use of the acid was followed with the happiest result. So also in an instance mentioned of extensive sloughing of the anus and perineum from injections of carbolic acid in hemorrhoids; while it is true that this has occurred, it is also true that the same acid has been used safely in thousands of cases of hemorrhoids. Besides, too, the most extensive sloughing of the lower end of the rectum that I have ever known could not be traced to any cause. While, therefore, everyone must acknowledge that carbolic acid may do great mischief when misapplied, the experience of Gardner, Brodnax and Cleborne demonstrate beyond cavil that we have in it an agent of incalculable good, and one that the profession will do well to cultivate.

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THE SURGERY OF THE URETERS.—
(Read in the Section of Surgery and Anatomy at the Forty-Fourth Annual Meeting of the American Medical Association, June 8, 1893.) By Weller Van Hook, A.B., M.D.

In this masterly article on ureteral surgery Dr. Van Hook has arrived at the following conclusions:

The extrapelvic portion of the ureter is most readily and safely accessible for exploration and surgical treatment by the retroperitoneal route. Hence all operations upon the ureters above the crossing of the iliac arteries should be performed retroperitoneally, except in those cases in which the necessity for the ureteral operation arises during laparotomy.

The intrapelvic portion may be reached by incision through the ventral wall, the bladder, the rectum, the vagina, in the female, the perineum in the male, or by Kraske's sacral method.

The ureter is not only exceptionally well protected from injury, but by its elasticity and toughness resists violence to a remarkable degree. The histology of the ureters furnishes most favorable conditions for the healing of wounds. Longitudinal wounds of the ureters at any point heal without difficulty in the absence of septic processes, under the influence of ample drainage. In all injuries where the urine is septic before the operation, or where the wound is infected during the operation, drainage must be effected.

The chemic composition and reaction of the urine must be studied in all injuries to the ureter, the urine being rendered acid, if possible, and the specific gravity kept low. The pelvis of the ureter is, *ceteris paribus*, the most favorable site for wounds of the ureter, since scar-contraction is not so likely there to be productive of ill results. In aseptic

longitudinal wounds of the ureter occurring in the course of laparotomy, suture may be practised and the peritoneum protected by suture. Transverse wounds of the ureter, involving less than one-third of the circumference of the duct, should be treated by free drainage (extraperitoneal), and not by suture. In transverse injuries in the continuity of the ureter, involving more than one-third of the circumference of the duct, stricture by subsequent scar-contraction should be anticipated by converting the transverse into a longitudinal wound and introducing longitudinal sutures.

In complete transverse wounds of the ureter at the pelvis, sutures may be used if the line of union be made as great as possible. In complete transverse injuries of the ureter in continuity, union must not be attempted by suture. In these cases union without subsequent scar-contraction may be obtained by the writer's method of lateral implantation, as described. In complete transverse injuries of the ureter very near the bladder, the duct may be implanted, but with less advantage, into the bladder directly.

At the pelvis of the ureter, continuity after complete transverse injury may be restored by Kuester's method of suture, providing the severed ends can be approximated by slightly loosening the ureter from its attachments.

Rydgier's method of ureteroplasty in such injuries may be tried if other methods cannot be utilized. The primary operation should at least fix the ends of the tube as nearly as possible together. In both transperitoneal and retroperitoneal operations the ureteral ends can be approximated by my method, even after the loss of about an inch of its substance. The use of tubes of glass and other materials for the production of channels to do duty in place of

destroyed ureteral substance must be rarely satisfactory, and even if temporarily successful, the duct is almost sure to be choked by scar-contraction. The implantation of the cut ends of a ureter into an isolated knuckle of bowel is objectionable: (1) because the bowel is not aseptic; (2) because the operation is too dangerous. In injuries of the portion of the ureter within the pelvis, with loss of substance, the ureter should be treated as follows: if possible, the continuity of the ureter should be restored by the writer's method. If this is not possible, the ureter, if injured in vaginal operations, should be sutured to the base of the bladder with a covering of mucous membrane as far as possible, with a view to a future implantation or formation of vesico-vaginal fistula with kolpoplexis.

In injuries to the pelvic ureter during laparotomy, where the continuity cannot be restored, and where temporary vaginal implantation cannot be effected in the female, or vesical implantation in the male, the proximal extremity of the duct should be fastened to the skin at the nearest point to the bladder. In ventral ureteral fistulæ opening near the bladder, the ureteral extremity may, in some instances, be planted directly into the bladder without opening the peritoneum. In such cases where the ureter will not reach the bladder, a flap may be raised from the anterior vesical wall and reflected upward, extraperitoneally, to meet the ureter and form a tubular diverticulum. Such a flap may be so elongated by a preliminary operation to transplant the perineum back of the fundus, or by accurately suturing it there at a single sitting, that median ventral fistulæ of the ureter may be cured if they open at any point an inch or more below the umbilicus.

Symphiseotomy is a valuable and justifiable preliminary step in these

plastic vesical operations. It is legitimate when both ends of the cut ureter open upon the abdominal wall to try Rydgier's method.

Implantation of one or both ureters into the rectum is absolutely unjustifiable under all circumstances, because (1) the primary risk is too great; (2) there is great liability to stenosis of the duct at the point of implantation; (3) suppurative utero-nephritis is almost absolutely certain to occur, either immediately or after the lapse of months or years.

Ligation of the ureter to cause atrophy of the kidney is unjustifiable.

Extirpation of a normal kidney for injury or disease of the ureter is absolutely unjustifiable, except where the ureter cannot be restored in one or other of the ways cited.—*International Medical Magazine*.

READING AS A THERAPEUTIC AGENT.

—The effects of the emotions, as aroused or stimulated by books, company or plays, upon the general health, are matters that seem to have taken up but a very small practical part of our observations. People, as a class, seem to be possessed of but very little discriminating ideas as to the value of reading, company or play-going, either as life-shorteners or life-lengtheners. We remember on one occasion seeing an emotional friend walk off with a copy of the "Adventures of Jack Sheppard, the Highwayman," and of "Jonathan Wilde, the Thief Taker," which he had borrowed "to read himself to sleep upon." It is needless to say that he had a hard time trying to go to sleep, and that this sleep, when it came, was so beset by nightmares and horrors, that by morning he was more dead than alive. For such purposes—to woo sleep when restless, nervous or preoccupied—it is better

to procure a copy of some fairy tales. Frank R. Stockton's stories possess here an immense therapeutic value. We once attended a lady who was somewhat depressed; she was close to her confinement and away from her immediate family and somewhat apprehensive, low-spirited and much given to brooding. We prescribed Mark Twain's "Huckleberry Finn" as a remedy, but when the lady reached that part of the tale where the long-lost dauphin and the Duke of Bridgewater begin their adventures, she became so convulsed with laughter—a laughter and a general wide-spread expression of exuberant and demonstrative gladness in which the fetus seemed to join—that the prospective heir apparent thrust one of his feet through his enshrouding membranes and brought about a little too prematurely-induced labor. Since then we have been careful as to the class of reading we advise in such cases; we now advise only such books as cause a rippling laughter or only a mere passive and only slightly vibratory undemonstrative sort of silent pleasure. In cases of torpid liver and dormant intestines—uncomplicated with any obstetric prospects—we advise that part of "Huckleberry Finn" that brought about the above catastrophe. This tale should not be prescribed in cases of diarrhœa, dysentery or cystitis.

All literature—depending upon its class—has a varied and distinct therapeutic effect, and if ever we should go in for founding a new system—unless the abnormal craving for laparotomies should turn us into an insatiable and a not-to-be-restrained laparotomist—we should possibly found the school of bibliopathy. We should have variations in the intensity of our therapeutic means regulated by having a thing read alone in company, silently or to an audience; we would depress the over-sanguine by

pathetic stories and arouse the hypochondriacs out of their lethargy by jolly tales—in fact, there is no end to the possibilities that systematized reading could accomplish in a therapeutic sense. From "Bain's Elements of Logic" to "Robinson Crusoe," all have specific value"—Editorial in *National Popular Review*.

CEREBRAL LOCALIZATION.—TREPHINING.—(Trépanation et localisations cérébrales. *Gaz. des Hôp.*, November 30, 1893.) By Dr. Péan.

The author reports a very interesting case of a child four and a half years old, who received a pistol-bullet of small calibre in the right eye; it traversed the globe and entered the brain.

For about three weeks fever, cephalalgia and restlessness by day and night were the prominent symptoms. Then there was intense pain on the right side of the head, principally at night, and at the same time a progressive weakening of vision in the left eye. An examination of the injured eye showed total blindness, with widely-dilated, immobile and clouded pupil. A sympathetic infectious neuritis was diagnosed. Four subconjunctival injections of a 1 p. c. solution of sublimate produced absorption. Little by little the pupillary movements and vision returned. Ten weeks after the accident the patient, after headache and vague pains in the limbs, became paralyzed in the left arm.

The next day the following condition was present: The intelligence was clear; she answered questions well, and complained of mild pains in the right orbital region. There existed a slight facial paralysis on the left side and a left-sided monoplegia of the upper extremity. The lower extremity showed a slight paresis, but the patient could stand and walk. The diagnosis was of a lesion of

the middle portion of the ascending frontal and parietal convolutions, caused by a peri- or intra-cerebral abscess. Later in the same day the patient had a Jacksonian epileptic crisis; the head was turned to the left and the left arm only was involved. The crisis was repeated during the night and the next morning.

The trephine exposed a pia mater red, with pale, arborescent streaks. The cephalo-rachidian liquid was opaque, milky and manifestly purulent; about two hundred grammes of pus were removed. After thorough cleansing with sterilized water, it was seen that the cerebral convolutions were depressed, and the space between the membranes and the dura was larger than normal. The wound was sewed up and an antiseptic dressing applied. The following day the child was lively, bright, complained of no pain, and began to move the arm. The next day the movements were better and the general condition satisfactory. The wound healed by primary union.* Fifteen days after the operation the patient left the hospital. One month after, the condition was satisfactory, the movements of the arm normal, and the injured eye could count fingers at a distance of over five yards.—*International Medical Magazine*.

CERTAIN ERRONEOUS PRINCIPLES AND METHODS IN GYNÆCOLOGY.—In a recent paper on this subject, read before the Philadelphia Obstetrical Society, Dr. G. Betton Massey (*N. Y. Med. Jour.*) said probably the most fundamental error of the day is the tacit assumption of many that gynæcology is synonymous with gynæcological surgery. Gynæcology should be understood as embracing the whole field of the affections commonly found in women, particularly those likely to be confounded with purely local faults, such as disorders of the nervous,

digestive and eliminative systems. He does not regard removal as the only proper course to pursue with diseased organs of the female pelvis. Typhoid fever, gastritis, cystitis hepatitis and the whole list of organic inflammations are clearly due to local diseased organs, yet we do not hear of the removal of these structures being either practiced or proposed. In cases of laceration of the cervix, the cause of suffering is not the hiatus in the lips of the uterus nor the much-maligned scar-tissue at the apex, but lies in the chronically inflamed uterus. To cure the patient, we must cure the endometritis as well as any enfeeblement of the nervous system consequent upon them. After that is done it is time to consider the wisdom of repairing the tear, if it be a bad one. If hot water, glycerin tampons and iodine to the vault have failed, the patient should be placed on the mixed faradic and galvanic treatment, applied within the cavity of the uterus by means of a pliant electrode covered with moist absorbent cotton. It is extremely rare that improvement does not show itself immediately, as the contractile effects of the two currents are efficiently assisted by the microbicidal and decongestive action of the positive pole of the galvanic current. The disease for which the buckets of ovaries and tubes that are nightly paraded in our societies exists in the minds of the operators rather than in the bodies of the patients. The catarrhal and inflammatory affections of the tubes and ovaries for which these organs are thus amputated are generally amenable to curative influences patiently prosecuted, chief of which is the direct application of the galvanic current to the uterus, or the indirect application of the same and the faradic current to the ovary itself. To the minds of careful investigators the old theory that dys-

menorrhœa, or menorrhagia, which he suggests as a preferable term, was due to a mimic labor with an obstructed outlet has been completely disproved. No accumulations have ever been shown to occur in these cases, and the fact that a large dilator can be inserted within the cavity of the uterus, disproves the existence of any obstruction to the flow of the menstrual fluid. A rational review of this question is convincing that menstrual pain is due to either ovarian or nervous erethism, the actual attack being a neuro-muscular storm in a series of organs imperfectly prepared to functionate, the exciting cause being often a catarrhal endometritis, though by no means always. For a disease of such varied relationships and bearings, it is manifestly improper to practice the routine method of dilatation, which is irrational, rarely of permanent benefit, harsh, and often productive of dangerous results.

PREVENTION OF TUBERCULOSIS.—Vickery (*Boston Medical and Surgical Journal*, January 4, 1894) in a paper on the above subject first calls attention to the mortality of phthisis, which remains practically the same as it was years ago. He thinks that our enthusiasm over the discovery of the *cause* of tuberculosis has caused us to lose sight of the hereditary and acquired predisposition to the disease. "Even weeds must have soil to grow in." Granting, however, the importance of climate and heredity, possibly no one doubts that the *complete destruction* of the bacillus tuberculosis would eradicate the disease. Raw milk from tuberculous cows may occasionally cause the disease, though the flesh of such animals, if inspected, is harmless. The main source of danger lies in the sputa and the pus of tuberculous sores. These may become dry and spread

through the air. Behrens sums up the necessary means for its prevention as follows: (1) The public should be enlightened; (2) sputa in public places should be minimized or rendered innocuous; (3) the streets should not be allowed to be dusty; (4) clothing and houses should be disinfected; (5) there should be public hospitals for the tuberculous; (6) tuberculous patients should not follow avocations that may endanger others; (7) tuberculosis in cattle should be under control of the government. A corollary to these rules is the report to the Board of Health of cases of tuberculosis. Bowditch believes that environment is a great factor in the causation of tuberculosis. He believes that tenements should not be tolerated in cities. Children should be taught in school of the danger of spitting in houses and in the street. He believes we must be cautious about declaring tuberculosis to be as contagious as small-pox and scarlet fever. It is an infectious disease, but not to the same degree as the others, and the conditions are very different. It would have a depressing effect on patients with incipient phthisis, to be treated as though they had a highly contagious disease. He always directs his patients not to use handkerchiefs, but to use cloths or paper-cups which can be immediately burned. White (*Ibid.*) believes that tuberculosis of the integument can very readily cause tuberculosis of internal organs either in his patients or his friends. He believes tuberculosis should be put in the same category as leprosy. If the same methods were applied it would soon be eradicated. Olis (*Ibid.*) believes that, considering the varied means of contagion, it is wonderful any of us escape. He believes one of the great needs is hospitals under State or national care, where consumptives can

be treated. Greenleaf (*Ibid.*) uses lintine cut in squares for the reception of the sputa. This is rolled in wads and placed in a paper bag, the whole being burned upon the first opportunity. He suggests that these napkins be used by all patients who are compelled to expectorate much. Bowditch (*Ibid.*) wished to impress his views as to the reporting of cases to the boards of health. "With caution and with rational methods, I believe an immense deal of good can be done, but we should keep within bounds." He believes it nonsense to class tuberculosis with scarlet fever and small-pox.—*Univ. Med. Mag.*

THE SECRETION OF HUMAN MILK.—Basch (*Archiv. für Gynäkologie*, Band xliv., Heft 1, p. 15) gives in a most instructive and interesting paper the results of his investigations concerning the secretion of milk in the human female. According to various observers, traces of milk glands may be observed in a foetus four centimetres long. These consist of a whitish spot one-half millimetre broad, minutely elevated, due to a heaping together of the cells of the Malpighian stratum. Later this becomes more marked and the spindle cells of the corium are bedded in a cellular stroma. A number of flask or cupped processes extend from the Malpighian stratum up into the cutis, and later become ducts. Gradually a wall forms around the central swelling, separated from it by a groove or depression. This wall in man remains small, while the central papilla grows and ultimately takes its permanent form. In the ruminants (as the cow) the outer wall grows, while the papilla remains within until it forms a tube or blind sac with the papilla at its bottom, where the milk ducts open. In the marsupials (as the kangaroo) there is at the bottom of this sac

or tube a small projecting nipple, so that in these animals we may find, as it were, the point of union of two systems of development, one leading to the human nipple, the other to the udder of the cow. After birth the degree of the development of the nipple seems to be parallel with the longitudinal growth of the child—the longer the child, the more the nipple is developed. In the formation of the nipple, both the gland foundation and the cutis take a part. Its construction represents a histo-biologic process which is the resultant of many components, of which one is active, one passive. The active element is the epithelium of the gland substance and nipple zone; the passive agent, the gland basis and its continuation into efferent rays. The nipple is made up of smooth muscle fibre, nerves, fatty tissue and vessels. A net-work of muscle fibres supports and surrounds the base and sends fibres upward. The nerves form cord-like bundles on the margins of the fat divisions and of the gland stroma, some ending in the individual muscle fibres, some in the skin papillæ following the course of the vessels. The capillaries which enter each papilla of the nipple, surround the exit ducts and ramifications of the gland with a basket-like net-work. The veins surround the boundaries of the nipple in a polygon, and a deep venous circle returns the blood to the vena thoracica. The fatty matter is so distributed as to form a series of layers under the nipple area, so that this is uplifted above the surrounding level.

Three chief varieties of congenital malformations of the nipple may be recognized:

1. Papilla plata; 2, papilla fissa; 3, papilla invertita. Etiologically, these deformities represent various stages of arrested development.

The function of the nipple is both that of a mouth-piece to the gland and also of a closing apparatus. Its shape may be variously modified by the sucking efforts of the child. Numerous measurements show a relationship between the height of the nipple and the breadth of its base; the higher the nipple, the smaller generally its base, and *vice versa*. It would seem that it is due to a contraction of the musculature of its base and papilla, and that the vascular apparatus plays only a subordinate part. Regarding the action of the nipple in suckling, he says: "If it is desired to obtain milk from the nipple of a woman, it is necessary to squeeze its base between the thumb and forefinger. As the milk wells up from many small openings, it will be seen that the nipple widens and shortens; a sort of lessened tonus seems induced. If the pressure be relaxed, the nipple erects itself again. This same condition probably obtains during the sucking of the child. Not merely does the tongue surround the nipple, but it also compresses it from base to apex with a slight drawing action. The aspiratory effort must also be remembered and considered. The aspiratory power of the child, unaided, is not sufficient to overcome the normal tonus of the muscular apparatus of the nipple. The compression of the base of the nipple is a marked and important constituent of the act of sucking. The alternating increasing and diminishing compression of the nipple, in connection with the aspiratory effort of the child, empties the breast in a rational and continuous manner, so as to maintain a due relationship to the child's breathing and acts of deglutition.—*American Journal of the Medical Sciences*.

ENTERECTOMY BY PAUL'S METHOD.—

Paul reports the following (*British Medical Journal*, 1894, No. 1727): Woman, aged 51 years, was admitted to the hospital, having a strangulated femoral hernia with the usual symptoms. After exposing the intestine, an area was found which had already begun to slough, and from which the contents made their appearance. An incision was therefore made in the median line of the abdomen, and after carefully cleansing the hernia, it was drawn into the abdominal cavity, care being taken to prevent contact with the peritoneum in the proceeding. After clamping above and below, the injured portion was cut out with scissors, together with the corresponding mesentery, bleeding-points were ligated, and the divided ends united by a bone tube, as recommended by the author. The proximal extremity was dilated, and the distal end contracted, so that it was found impossible to invaginate the former into the latter, as the author had heretofore done. It was, therefore, necessary to employ a tube of small size ($\frac{3}{4}$ in. x $1\frac{1}{4}$ in.), fastening this in the distal portion, and by means of the traction thread this was then invaginated into the proximal end, in a direction, therefore, against the current of the contents, and although this method had been found to give good results in the case of experiments on dogs, the author hesitated somewhat about employing it in practice. The patient made a good recovery. During the first twenty-four hours the patient was allowed the yolk of an egg, two ounces of brandy and some beef essence. This was gradually increased as the condition of the patient warranted.

Horricks details in the same journal the following case: A woman, aged 38, was admitted to the hospital with intestinal obstruction and with severe ab-

dominal pain. Above Poupart's ligament, on the right side, a solid tumor was felt. An exploratory incision was made, which disclosed a tumor implicating a considerable portion of the small intestine. The wound was closed, and the patient recovered from the operation without complication. Three weeks later an operation was performed for the relief of the obstruction. A 3-inch incision was made in the median line rather above the middle. The tumor was drawn out of the incision, and, after emptying and securing the bowel on either side, a V-shaped section of mesentery containing enlarged glands and the affected bowel was excised. After securing the bleeding vessels, a Paul's bone tube was introduced into the lumen having the smaller diameter, and, after securing with continuous silk suture, it was invaginated into the other open extremity in the manner advised by Paul. The portion of intestine removed measured 39 inches in length; the tumor was found to be a large round-celled sarcoma. The patient made an uncomplicated recovery, and was discharged well at the end of five weeks.—*Amer. Jour. Med. Sci.*

ATROPINE IN MORPHINISMUS.—Dr. Albrecht Erlenmeyer, in the *Therapeutische Monatshefte*, calls attention to the plausible hypothesis of Marmé, that morphine in the body through the taking up of oxygen is changed into oxydimorphine, and it is this substance which gives rise to the symptoms of abstinence, that is to say, that the abstinence-symptoms are the result of oxydimorphine poisoning, and not of morphine. Since, then, these symptoms are not caused by morphine, the use of atropine for their relief is not rational, and should be abandoned.—*American Journal of the Medical Sciences.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

The subscription price of this JOURNAL is \$2.00 a year.

This JOURNAL is published on the fifteenth of every month, and any subscriber failing to receive his copy promptly is asked to announce the fact to this office.

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Specimen copies will be mailed to any address on application from a subscriber.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

The recent meeting in Greensboro, of this honorable, and now very important, body was marked by a spirit of work. In electing Dr. W. H. H. Cobb as the presiding officer for this meeting, the Society acted wisely, as is proven by the most excellent and graceful manner in which that gentleman executed the duties of his office. The work of the different sessions went on smoothly, and, though the program, as previously arranged, could not be followed in exact order, it was thoroughly carried out.

The city of Greensboro was at its prettiest, and its hospitable citizens, through their gifted representative, threw open their hearts and their homes to their guests, assuring them that they

had fallen among friends. We are glad to see that that old hackneyed feature of our annual meetings, the banquet, that variety of pleasure which gratifies the few and bores the many, is becoming a thing of the past, and that the local committee of arrangements are looking for more dignified and edifying sources of entertainment for the Society. The social feature of the Greensboro meeting was the unique and thoroughly enjoyable entertainment presented by some of the pupils of the North Carolina Normal and Industrial School for Girls. The young ladies who took part in the entertainment executed their several rôles with precision and grace, and manifested high talent. We regret the distance of the institution from the city, together with duties connected with the Society, prevented a day visit to this truly grand enterprise, which is doing so much to give to the girls of our State such an education as will prove of

practical value to them in their daily lives. It is a work which the State should have established long before she did, and now that it is under way, it should be aided and encouraged and its usefulness increased in every direction possible, until its helpful influence is felt in every home in our land.

We have digressed somewhat from matters medical, but those who were fortunate enough to witness the entertainment by these young ladies of the Normal School, will pardon the digression, we are sure, for after the entertainment we heard several, and they were not all young members, express themselves as willing to spend a large portion of their time at the College.

The usual number of distinguished members of the profession from other States were present at this meeting, thus evidencing the importance in their eyes of this gathering of North Carolina physicians. We are highly gratified, however, to see that our own men are not afraid to express their opinions and recite their experiences in the presence of these medical celebrities, for we would far rather forego entirely the pleasure we derive from the presence of these gentlemen and the profit that comes from their discussions than to feel that any member has been prevented from freely and fully giving expression to his opinion. We sincerely trust our own members will not permit themselves to be awed into silence by the presence of any of the great lights who may happen from year to year to be our guests, for such a condition would completely subvert the real object of the meetings of the Society, they being intended as medical experience meetings for our town and country doctors, and

not as schools where free lectures are delivered.

The election of two members to fill vacancies on the Board of Medical Examiners completely overshadowed the election of officers of the Society. The selections made—Drs. Thomas S. Burbank, of Wilmington, and J. M. Hays, of Greensboro, were most excellent, and we doubt not these gentlemen will perform their arduous and, in many instances, unpleasant duties with ability and justice. They both possess qualities which fit them well for the positions they are to fill, and we congratulate the people of the State that they have gained two such efficient guardians to defend them against incompetent men. We also offer our heartiest congratulations to these gentlemen, who have received the highest honors the Society can bestow. May they wear these honors worthily and with fidelity.

The new rule adopted of limiting the time for the reading of any single paper to 20 minutes seemed to find the authors of papers unprepared, for there were very few that did not exceed the limit. Nor have members attained that happy faculty of condensing their remarks in discussion in such a degree as to express all they wish to say in five minutes. However, in as large a body as the Society is getting to be, some such rule is a necessity if all the papers prepared are to be read. The time is not far distant when the Society will have to be divided into two sections, a medical and a surgical, with a general session in the forenoon, and probably in the evening, when the essay, the oration and the subject for the annual discussion may be

presented, and the two sections holding simultaneous sessions in different places in the afternoon. By thus giving more time a greater number of papers could and would be presented, and the discussions would be more general and instructive.

The Society doubtless acted wisely in refusing to change the time for the annual meeting from May to October. Though there were very few members present when the change was proposed, probably a large majority are in favor of May, or at least the spring season, as the time for the meeting. The present arrangement is unquestionably preferable to those members residing in the eastern section of the State. The selection of the places for meeting is a matter of great importance, for it has much influence in determining the number of members attending. While it is very desirable to have the Society favor different sections of the State in successive years, no town should be selected that cannot furnish *hotel* accommodation for at least three hundred.

The new provision of the Constitution providing for the appointment of their own assistants by the chairmen of sections worked well at this meeting, and several good papers were presented that would probably have remained unwritten without this provision. We hope the chairmen for the ensuing year will do as well as did their predecessors, and they should not put off until a short time previous to the meeting the selection of their assistants, but should secure them at once.

We rise to make this point of order: Is it best that you should longer delay sending us your subscription to the JOURNAL?

MEETING OF THE BOARD OF MEDICAL EXAMINERS OF NORTH CAROLINA.

The Board of Medical Examiners met at Greensboro Monday, May 14th, 1894, at 10 a. m.

The morning was spent in the registration of candidates—72 in number.

All of the members of the Board were present except Dr. George Gillett Thomas, who was unavoidably detained at his home. However, Dr. Thomas sent in his examination in Chemistry for the use of the Board.

Two written examinations were held daily except on Monday.

Dr. Julian M. Baker held Obstetrical examinations on the manikin, and written examinations on Gynæcology and Diseases of Children.

Drs. Picôt and Whitehead held examinations on Bandaging.

The examination in *Materia Medica* and Therapeutics was supplemented by the identification of drugs.

The highest average was made by Dr. Hubert A. Royster (98 13-14), who won the Appleton prize. The lowest grade was 25. The required grade was 80 per cent.

The following is the list of the licentiates:

Drs. E. R. Jefferson (col.), Raleigh; G. S. Tennent, Davidson; W. T. Turlington, Benson; H. C. Abernethy, Mari-
posa; J. S. Brown, Bear Poplar; G. A. Coggleshall, Oxford; L. A. Nowell, Coleraine; J. R. Palmer, Macon; W. J. Sumner, Buffalo Ford; J. R. Alexander, Croft; Clara E. Jones (female) Goldsboro; L. McD. Henderson, Croft; J. M. Ledbetter, Rockingham; Jno. A. Pickett, Liberty; John Thames, Thomasville; F. M. Clarke, Beaufort; H. G. Utley, Raleigh; T. E. Linn, Asheville; J. H. Bennett, Wadesboro; Geo. P. Reid, Old

Fort; Geo. Thrash, Asheville; B. K. Hays, Oxford; J. T. Miller, Hot Springs; J. E. Smoot, Omega; J. W. Bryan (col.), Tarboro; Wm. L. Kirkpatrick, Crabtree; HUBERT A. ROYSTER, Raleigh; L. Johnston Woodcock, Asheville; W. E. Evans, Carthage; R. L. McGeachy, Fayetteville; J. W. Kornegay, Mt. Olive; H. C. Menzies, Hickory; H. P. Bowman, Liberty; W. D. Young, E. Durham; F. M. Davis, Iron Duff; L. Hughes Browne (col. female), Wilmington; Anna M. Gove (female), Greensboro; Charles H. Brantley, Finch; Jas. C. Gill, Weaverville; J. H. Alston (col.), Wilmington; S. W. Mott, Davidson; B. H. Greenwood, Barnardsville; W. H. Wooten, Davidson.

Temporary licenses since the Board meeting at Wrightsville have been issued to the following persons:

J. R. Jump, L. LeClergé, W. D. Young, T. E. Linn, R. E. L. Flippen, E. R. Jefferson, Anna M. Gove, G. A. Coggeshall, H. C. Rogers, J. E. Smoot, D. R. Green, J. S. Brown, Chas. S. Tate.

These temporary licenses expired on

the morning of the first day of the Society meeting. Some of the above-named persons failed to appear for examination.

Upon discussion, it was decided to hold an extra session at a time and place to be selected by the President and Secretary. This session will be held the last week in July or first week in August. Due notice will be given through this JOURNAL, as well as the newspapers. A written notice will be sent, also, to each rejected candidate.

The terms of office of Drs. Robert S. Young and George Gillett Thomas having expired, Drs. J. M. Hays and Thomas S. Burbank were elected to fill a six-year term.

The Board passed resolutions of thanks to the retiring members for their faithful and efficient services as Examiners.

After routine business, the Board adjourned on Friday night, May 18th.

WM. H. WHITEHEAD, M.D.,

President.

L. J. PICÔT, M.D.,

Secretary.

Reviews and Book Notices.

Clinical Diagnosis. By Albert Abrams, M.D. (Heidelberg), Professor of Pathology, Cooper Medical College, San Francisco, Cal.; Pathologist to the City and County Hospital, San Francisco, etc. Third edition, revised and enlarged. Illustrated. Cloth, 8vo., 272 pages. Mr. E. B. Treat. New York, 1894. Price of this book is \$2.75.

In presenting the present edition of his book the author quotes: "I have gathered a posie of other men's flowers, and nothing but the thread that binds

them is mine own." But in gathering together these facts he has used much skill in selecting those that will prove practical and useful. The addition of an appendix containing a chapter on insanity, and many synoptic tables, e. g., Localization of the Functions of the Segments of the Spinal Cord; Diagnosis of Diseases of the Nervous System; Table of Paralyzes, etc., and a summary of Recent Methods of Diagnosis greatly enhances the value of the book. The book is printed on good paper and

well bound, but the press-work could be materially improved.

An Illustrated Encyclopædic Medical Dictionary. Being a Dictionary of the Technical Terms Used by Writers on Medicine and the Collateral Sciences, in the Latin, English, French and German Languages. By FRANK P. FOSTER, M.D., Editor of the *New York Medical Journal*. With the Collaboration of William C. Ayres, M.D., New Orleans; Edward B. Bronson, M.D., New York; Charles Stedman Bull, M.D., New York; Henry C. Coe, M.D., New York; Andrew F. Currier, M.D., New York; Alexander Duane, M.D., New York; Simon H. Gage, Ithaca, N. Y.; H. J. Garrigues, M.D., New York; Charles B. Kelsey, M.D., New York; Russell H. Nevins, M.D., New York; Burt G. Wilder, M.D., Ithaca, N. Y. Vol. IV. With Illustrations.

This volume completes this great work, which is an honor to American Medicine, and which will remain for many years a monument to the patient labor of Dr. Foster. It embraces pages 2,321 to 3,096, and, with the preceding volumes, forms the most thorough and useful dictionary of the terms used in medicine and the collateral sciences, that has ever been produced. The enormous amount of labor and time necessary for the preparation of such a work cannot be appreciated by one who only turns the pages to find a certain word about which he desires information. This volume contains a supplement giving terms not inserted in the text, and a list of works consulted. It also contains a list of abbreviations and tables of weights and measures.

The distinguished Editor and his corps of efficient collaborators are to be congratulated on the final termination of their task, and upon the flattering reception it has received at the hands of the profession. The excellent mechanical

work upon these volumes is an important feature. The publishers deserve great praise for the handsome appearance and durability of the volumes.

Lectures on Auto-Intoxication in Disease, or Self-Poisoning in the Individual. By CH. BOUCHARD, Professor of Pathology and Therapeutics, Member of the Academy of Medicine, and Physician to the Hospitals, Paris. Translated, with a Preface, by THOS. OLIVER, M.A., M.D., F.R.C.P., Prof. of Physiology, University of Durham. In one Octavo volume; 302 pages. -Extra Cloth, \$1.75 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

The author very ably and interestingly discusses, in thirty-two lectures, all the points bearing on his important subject, and his translator has very acceptably rendered his lectures into English. The toxic principles of the urine, with their origin, are discussed, and from this the author passes on to intestinal antiseptics and the pathogenesis of uræmia. Lectures 10 to 23 will prove of special interest to those who pin their faith in the treatment of typhoid fever to intestinal antiseptics. These chapters treat of auto-intoxication of intestinal origin—typhoid fever; pathogenic therapeutics of typhoid fever—antiseptics of the internal medium; the treatment of high temperature; new mode of bathing in fevers; dieting of fever patients.

In placing this translation before his medical brethren, the translator very truly remarks that he is performing a service highly useful to the profession.

A New Aid Series of Manuals for Students and Practitioners is announced as in active preparation by Mr. W. B. Saunders.

As publisher of the "Standard Series of Question Compendis," together with an intimate relation with leading mem-

bers of the medical profession, Mr. Saunders has been enabled to study, progressively, the essential *desideratum* in practical "self-helps" for students and physicians.

The Sanders Aid Series will not merely be condensations from present literature, but will be ably written by well-known authors and practitioners, most of them being teachers in representative American colleges. This *new series*, therefore, will form an admirable collection of advanced lectures, which will be invaluable aids to students in reading and in comprehending the contents of "recommended" works.

Each Manual, comprising about 250 pages (5½x8 inches), will further be distinguished by the beauty of the *new* type, by the quality of the paper and printing, by the copious use of illustrations, by the attractive binding in cloth, and by the extremely low price, which will uniformly be \$1.25 per volume.

The International Medical Annual and Practitioner's Index: A Work of Reference for Medical Practitioners. By various editors and contributors; 1894; Twelfth Year; 8vo; Cloth; 704 pages. Mr. E. B. Treat, New York. Price \$2.75.

For the twelfth time this valuable work makes its annual visit to our table and is greatly welcomed. A glance at the list of editors and contributors must convince one how thoroughly representative it is. The present issue is by no means inferior to any of its predecessors. It has gathered together the latest methods of treatment and put them in shape for easy and quick reference, and in a style that will make the information useful. The book is freely illustrated by half-tones, wood-cuts and lithographs, and the mechanical work is of a high order.

Saunders' Question Compend.

Essentials of Nervous Diseases and Insanity; Their Symptoms and Treatment. A Manual for Students and Practitioners. By JOHN C. SHAW, M.D., Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School, etc., etc. Second edition, revised. Mr. W. B. Saunders, Philadelphia, 1894. Price \$1.00.

Essentials of Practice of Pharmacy. Arranged in the form of Questions and Answers. Prepared Especially for Pharmaceutical Students. Second edition, revised. By LUCIUS E. SAYRE, Ph.G., Professor of Pharmacy and Materia Medica of the School of Pharmacy of the University of Kansas. Mr. W. B. Saunders, Philadelphia, 1894. Price \$1.00.

The general excellence of this series of compends is acknowledged, and the present two volumes are not exceptions to the rule. Condensed, accurate and up to date, they will prove of great benefit to students in *reviewing* subjects previously studied from the text-books. Such illustrations as are necessary to elucidate the text are provided.

Southern Surgical and Gynæcological Association. Transactions of Sixth Session, held in New Orleans, La., 1893.

This volume of nearly four hundred pages contains many papers of value, read before this important and rapidly growing body of scientists. The papers have, for the most part, been published in the journals of the country, but it is a pleasure to have them collected together in such elegant shape as that in which they are presented in this volume.

Cases of diabetes occurring in gouty persons, Prof. Hare says, have been found to be greatly benefited by the administration of arsenic combined with lithia.—*Coll. and Clin. Record.*

Society Reports.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA—FORTY-FIRST ANNUAL MEETING.

Held in Greensboro, N. C., May 15th, 16th and 17th, 1894.

W. H. H. COBB, M.D. President, in the Chair.

The Forty-First Annual Meeting of this Society was convened in the Court Room, at Greensboro.

The Convention was called to order by Dr. W. P. Beall, Chairman of the Local Committee of Arrangements.

After prayer by Rev. Mr. Smith, of the Presbyterian Church, a most cordial welcome was tendered the Society by Col. R. M. Douglass, of Greensboro. On behalf of the Society Dr. J. B. Powers, of Wake Forest, responded in most felicitous style. The President then called the Society to order for the transaction of business, and appointed Drs. J. M. Hays, J. Howell Way and Albert Anderson as Committee on Credentials; also Drs. W. P. Beall, O. D. King and W. H. Lilly as Committee on Finance.

The President then read his Annual Message, in which many suggestions were offered looking to the welfare of the Society. [This address will appear in the next issue of the JOURNAL.]

On motion, Drs. R. L. Payne, Jr., E. R. Michaux and D. A. Stanton were appointed a Committee to consider the suggestions of the President and report to a future session of the Society.

A resolution was offered and adopted to limit the time for the reading of papers to twenty minutes, except by consent, and discussions to five minutes by each debater, with the privilege of the floor only once on the same subject, the author of the paper having the privilege of closing the discussion.

Dr. J. B. Powers presented a paper entitled "From Bacteria to Immunity," of which he gave an abstract without reference to the text. [See future issue of JOURNAL.]

Dr. Thomas M. Riddick next read an interesting paper entitled "A Pathological View of Some of the Specific Fevers." He contended for the truth of the statement that the Klebs-Löffler bacillus is the specific cause of diphtheria, mal-hygienic conditions acting as auxiliaries. The disease cannot originate "*de novo*." The general symptoms of toxæmia are due to the absorption into the system of the toxic proteid which is generated at the same time as the infection by the bacillus diphtheriæ. No mucous surface of the body enjoys exemption from the attack of the bacillus. The albuminuria which occurs in diphtheria is not due solely to the virus which passes through the kidneys—feeble cardiac action, impaired activity of the respiratory function, together with the pyrexia, are all factors in causing this condition. In regard to the causation of typhoid fever, water and milk are the chief media through which the bacillus is introduced into the system. The author insisted on the truth of the statement that the bacillus which causes a case of "typhoid fever must come from some pre-existing germ." It does not remain in the blood, but prefers as its habitat the marrow, spleen and liver. The dangerous constitutional symptoms

are due to the ptomaine, typho-toxine, which is elaborated by the microbe. The local lesions play rather a subordinate part in the untoward symptoms.

The next paper read was one entitled "Ptomainic Intoxication and Gastro-Intestinal Antisepsis," by Dr. J. R. Irwin. [See later issue of JOURNAL.]

Dr. R. H. Lewis, for the committee appointed at the last meeting of the Society to have prepared a portrait of the late Thomas F. Wood, M.D., LL.D., reported that the committee had performed their duty and presented to the Society a portrait from the brush of Mr. Randall, of Washington, D. C.

The report of the committee was accepted, and, on motion, the same committee was instructed to present the portrait to the State Library.

AFTERNOON SESSION.

The Society was called to order at 3:30 o'clock.

Dr. R. H. Stancell, Jr., read his report as Chairman of the Section on Surgery, being entitled "Some Recent Ideas." [See later issue.]

The next paper read was a Report of a Case of Enterorrhaphy, with Recovery, by Dr. Randolph Winslow. [See later issue.]

Dr. J. M. Hays read a paper on Ophthalmology, illustrated by colored diagrams. [This paper will appear in a later issue of the JOURNAL.]

Dr. J. E. Ashcraft read a paper on Syphilis, in which he reviewed the pathology of the disease and its prognosis. He dwelt upon the treatment, dividing it into hygienic, specific and local. Good health, good food, good air, suitable clothing, freedom from undue exposure to the elements, regular exercise and methodical habits constitute more than half the treatment. The specific treatment embraces the use of mercury, the

iodides of potassium and sodium and the chlorides of gold and platinum for the relief of some of the later symptoms. In answer to the question whether the continued use of mercury will not produce effects as bad as the disease, the author said such would not be the case if it were properly administered. He has used mercury in all stages of the disease and his patients were entirely cured. Never employ the iodide if it can be avoided. The degree of tolerance of each individual patient for mercury should be ascertained, and the drug continued at this dose, if possible, for 18 months. At the end of this time, if the patient has had no syphilitic symptoms other than those for which he first came under treatment, or if he has been for a considerable time without specific manifestations, all medication may be abandoned in the hope that the disease has been completely eradicated. If the mercurial treatment is discontinued too soon, tertiary symptoms are the almost inevitable result, with the necessity of a resort to iodide of potassium. Salivation following a too free use of mercury at the start requires the absolute withdrawal of the drug. The popularity of the iodides is due principally to the fact that they exert a very prompt control over certain manifestations of the disease, and to the idea possessed by many that its effects upon the system are less injurious than those of mercury. It should be remembered, however, that the properties of these drugs are not identical and that they cannot be used interchangeably. They should be used according to the special indications in the case—the iodide to relieve symptoms and lesions in the later periods of the disease, and mercury to cure the disease itself in all its stages.

Dr. S. D. Booth could not agree with the author in his very favorable prog-

nosis in this disease. In his practice he had found it very hard to hold his patients after the symptoms for which they had sought treatment had abated, and the discontinuance of treatment resulted in the appearance of late symptoms years after.

Dr. Powers called attention to the natural tendency to recovery in syphilis as well as other diseases, and that many cases did seem to go on to recovery without continued treatment.

Dr. R. H. Lewis then read a paper entitled "A Clinical Note on Glaucoma." [See later issue.]

At the evening session many citizens of Greensboro, including ladies, were present to hear the Annual Essay by Dr. J. Howell Way on the Family Physician in Relation to Inherited Disease.

The Essay was well prepared and well received. It will appear in full in an early issue of this JOURNAL.

The Essayist was followed by Dr. J. P. Fearrington, who read his report as Chairman of the Section on Physiology and Materia Medica. The author reviewed the therapeutic application of some of the recent pharmaceutical preparations, giving the results of their use in his hands.

Dr. von Ruck said that he had had a great deal of experience in the use of creosote in the treatment of tuberculosis, and a few years since made extensive experiments with it. He had treated four or five patients for two months with the remedy, and at the end of that time had failed to detect any marked improvement. He believed that he was justified in saying that creosote had no effect on pulmonary tuberculosis. He believed it to be valuable in certain cases of this disease, as it is in other diseases.

The Secretary read a letter of regret from Dr. A. B. Pierce for not being able to attend the meeting of the Society.

The Secretary read letters of resignation from Drs. G. M. Wimberly, Jr., M. R. Braswell, F. J. Thorpe, J. C. Braswell and J. J. Mann.

On motion, the resignations of the first four, whose accounts were balanced on the Treasurer's books, were accepted, and that of Dr. Mann was accepted when his dues were all paid.

The Secretary was instructed to so notify them.

A communication from Dr. C. Daligny was read by the Secretary giving his reasons for non-payment of dues.

On motion, he was excused from the payment, and the Secretary was instructed to notify him of the same.

In the absence of Dr. E. C. Laird, Chairman of the Section on Therapeutics and Practice of Medicine, his paper was referred to the Committee on Publication.

At the request of the American Medical Association, a committee was appointed to consider the advisability of changing the Code of Ethics. The committee consisted of Drs. J. P. Munroe, I. W. Faison and W. T. Cheatham.

At the request of the Society, Dr. Karl von Ruck read his paper on "How Should the Physician Treat Consumption at Home." [See July issue of JOURNAL]

It was moved that the election to fill vacancies on the Board of Medical Examiners be made a special order of 10 o'clock the next day. Carried.

The Society adjourned to meet the next day at 9:30.

SECOND DAY—MORNING SESSION.

The report of the Committee on Obituaries was called for and read.

On motion, the report was referred to the Committee on Publication, to be published in the transactions of the Society.

The Committee on Nominations was appointed by the President. It consisted of Drs. Oscar McMullen, R. W. Tate, R. L. Gibbon, W. D. Pemberton and J. H. Way.

The President announced that the time had arrived for the election of members to fill the two vacancies on the Board of Medical Examiners. Drs. McMullen and Laughinghouse were appointed tellers.

Nominations being declared in order, Drs. J. R. Irwin, of Croft; J. M. Hays, of Greensboro; W. P. Beall, of Greensboro; T. S. Burbank, of Wilmington, and I. W. Faison, of Charlotte, were nominated.

Dr. Battle nominated Dr. J. Howell Way, of Waynesville, but on request of Dr. Way his name was withdrawn.

Drs. Parris and Powers were appointed additional tellers.

The following was the result of the ballot: Total number of votes cast 168; number of votes necessary for election 85.

Dr. Burbank received 106, Dr. Hays 79, Dr. Beall 67, Dr. Faison 42 and Dr. Irwin 9.

Dr. Burbank, having received a majority of all the votes cast, was declared duly elected a member of the Board of Medical Examiners for a term of six years.

None of the other nominees having received a majority of the votes cast, it was declared necessary to ballot again for the member to fill the other vacancy on the Board.

Dr. Faison withdrew his name.

The nominees were Drs. Irwin, Beall and Hays.

The result of the second ballot was as follows: Total number of votes cast 156; number necessary for election 79. Dr. Hays received 80, Dr. Beall 56 and Dr. Irwin 20.

Dr. Hays, having received a majority of the votes cast, was declared duly elected a member of the Board of Medical Examiners for a term of six years.

The Local Committee of Arrangements announced that it had been arranged for the Annual Oration to be delivered by Dr. E. G. Moore, in the chapel of the Normal School building, 8:15, that evening.

The following report of the Committee on the President's Message was offered by Dr. R. L. Payne, Jr.:

The committee appointed to consider the President's Message respectfully report as follows:

1. That the thanks of the North Carolina Medical Society are due Dr. Cobb for the immense amount of work he has accomplished looking to the upbuilding of our Society, the reclaiming of delinquent members and the more efficient working of the Sections of the Society.

2. We would recommend the suggestion of our President that each year a copy of the Code of Ethics and our Constitution and By-Laws be printed with the Transactions of this Society.

3. We would recommend to this Society the careful consideration of the suggestion that a permanent Secretary and Librarian be elected to take charge of our records, our exchanges and such books and specimens as may from time to time be donated to this Society.

Respectfully submitted,

R. L. PAYNE, JR.,

D. A. STANTON,

E. R. MICHAUX.

The report was adopted.

Dr. W. E. Headen read a paper on Some Recent Antipyretics. Referred to the Committee on Publication.

Dr. Thomas Hill read his paper on Some of Our Indigenous Remedies.

This paper was discussed by Drs. O'Hagan, Sikes, Poole and Kent, and was referred to the Committee on Publication.

The President then announced that the time had arrived for the Conjoin

Session with the State Board of Health.

The Conjoint Session was called to order by Dr. H. T. Bahnson, President of the Board of Health.

Dr. Bahnson, in a few words, introduced Dr. Kinyoun, representative from the United States Marine Hospital Service, to the Conjoint Session and invited him to participate in the proceedings of the meeting.

Dr. Kinyoun thanked the Society and the Board for their courtesy.

The first business in order was the reading of the report of the Secretary of the State Board of Health.

On motion of Dr. O'Hagan, a vote of thanks was tendered the Secretary for his excellent report and the interest and zeal he had manifested in the work of the Board.

After a discussion of some of the points alluded to in the Secretary's report, the Conjoint Session adjourned and the Society was again called to order.

In the Section on Medical Jurisprudence and State Medicine the Chairman, Dr. A. Cheatham, read a paper entitled *The Plea of Insanity to Evade the Law*.

It was referred to the Publication Committee.

At the suggestion of Dr. Lewis, he was instructed to have the name of Dr. Thomas F. Wood put upon the portrait to be presented to the State Library.

The Society adjourned to meet at 3 o'clock.

SECOND DAY—AFTERNOON SESSION.

The Society was called to order at 3 o'clock.

The President announced that the first business in order was the election of officers of the Society for the ensuing year.

He appointed Drs. Stancell, Poole, Faison and Hadley as tellers.

The Committee on Credentials reported names for membership. Received and adopted.

Nominations for President were then declared in order.

Dr. Poole placed in nomination Dr. T. E. Anderson, of Statesville.

Dr. Stancell placed in nomination Dr. J. H. Tucker, of Henderson.

The following was the result of the ballot: Total number of votes cast 103, of which Dr. Tucker received 63, Dr. Anderson 39, and scattering 1.

Dr. J. H. Tucker, of Henderson, was declared duly elected President of the Society for the next year.

Nominations for Vice-Presidents were declared in order.

It was moved that the four Vice-Presidents be balloted for at the same time, and that they take rank according to the number of votes received.

The following were placed in nomination:

Dr. J. Howell Way, Waynesville; Dr. F. R. Harris, Henderson; Dr. O. McMullen, Elizabeth City; Dr. C. A. Meisenheimer, Charlotte; Dr. Faison, Charlotte, and Dr. W. H. Harrell, Williamston.

The result of the ballot was as follows:

Dr. Way received 81 votes, Dr. Harrell 73, Dr. McMullen 59, Dr. Meisenheimer 56, Dr. Harris 44, Dr. Faison 13, scattering 6.

Dr. Way was declared duly elected First Vice-President, Dr. Harrell Second Vice-President, Dr. McMullen Third Vice-President and Dr. Meisenheimer Fourth Vice-President.

Dr. Levy, of the State Medical Society of Virginia, was introduced by Dr. Hodges and welcomed to the courtesies of the floor.

Nominations for Secretary were declared in order.

Dr. R. D. Jewett, of Wilmington, was nominated.

No other nomination being made, it was moved that Dr. Poole be requested to cast the vote of the Society for Dr. Jewett, and he was declared elected.

Nominations for Treasurer being announced in order, Dr. Perry was nominated, and Dr. Poole was requested to cast the vote of the Society for him.

Dr. Perry was declared unanimously elected Treasurer of the Society.

The report of the Nominating Com-

mittee was called for, but the Committee not being able to report, more time was extended to it.

Dr. Simon Baruch, of New York, was extended the privileges and courtesies of the floor, and invited to take part in the discussions.

Dr. R. L. Gibbon, Leader in the Annual Discussion, read a paper on Hydrotherapy.

Dr. Baruch read a paper on the same subject.

(To be continued.)

SOUTH CAROLINA MEDICAL ASSOCIATION—FORTY-FOURTH ANNUAL MEETING.

Held in Rock Hill, S. C., April 25th and 26th.

(Continued from page 216.)

DR. J. L. ANCRUM in the Chair.

Dr. Edward F. Parker read a paper on Consecutive Deafness and Lachrymal Obstruction as a Result of Nasal Polypi.

Dr. Porcher said that his experience had been similar to that of Dr. Parker, and that he could substantiate the points made by the author.

Dr. C. W. Kollock said that occlusion of the lachrymal sac generally begins in the nasal end of the canal, and in his opinion was generally due to disease in the nose. It was frequently found, also, in quite young children.

SECOND DAY.

The Association met at 9 a. m.

The following names were presented for membership from the Committee on Ethics: Drs. D. B. Frontis, Johnston; J. W. Fewell, Rock Hill; G. DeF. Wilson, Spartanburg; W. R. Towman, Orangeburg C. H.; C. F. McGahan, Aiken;

P. G. Ellison, Newberry; J. E. Boyd, Darlington; B. J. Witherspoon, Lancaster; W. B. Rice, Olor; J. W. Team, Ridgeway; Israel Brown, Newberry; C. B. Stephens, Fort Mill; T. M. DuBose, Columbia; J. A. Meldan, Rock Hill; J. H. Peele, Cartersville; Stewart W. Pryor, Chester; F. W. P. Butler, Edgefield; W. DeKald Wylie, Rossville; W. M. Brockinton, Manning; Allan Stuart, Beaufort; B. G. Gregg, Florence.

On motion, the report was accepted, and the above-named gentlemen were elected as members.

The committee appointed to suggest a plan for the liquidation of the debt of the Association made a report, which was adopted after some amendments. The report as adopted provided for an extra assessment of one dollar on each member, and that the Corresponding Secretary perform his duties without

compensation. The salary of the Recording Secretary was continued the same as heretofore.

On motion of Dr. T. G. Simons, it was resolved that this Association would vote unanimously against any change being made in the Code of Ethics of the American Medical Association, and that the Secretary so inform the Secretary of the American Medical Association.

The following applications for membership were received and laid over for action at the next meeting: Drs. H. M. Stuckey, W. D. Outts, S. C. Fewell, R. D. Hannahan, W. M. Lester, A. Earle Boozer, A. Roddy Miller.

Dr. J. C. Woodruff read a paper on Dislocation of the Femur with Fracture of its Upper Third in a Patient Aged 75 Years.

Dr. E. L. Patterson reported a case of fracture that had united with angular deformity and which he had succeeded in straightening two weeks after union had taken place.

Dr. A. A. Moore, Chairman of the Committee on Necrology, reported the death of two members, but that diligent effort had failed to procure the necessary data for the preparation of a suitable memorial.

Dr. G. A. Neuffer read a report of a case of Osteo-Sarcoma of the lower end of the femur, with amputation, which was referred to the Committee on Publication.

Dr. J. L. Napier read a paper on Typhoid Fever. [See later issue of JOURNAL.]

Dr. E. L. Patterson read a paper entitled 'The Prevailing Fevers of Barnwell County. (See later issue.)

SECOND DAY—AFTERNOON SESSION.

Dr. C. W. Kollock read a paper on the necessity for legislation in the prevention of blindness in South Carolina.

Dr. Porcher called attention to the great prevalence of aprosexia among school children from habitual mouth-breathing, and the much needed want of school inspectors to detect these cases in order that they may be corrected before the disease has progressed beyond the power of the surgeon to relieve it, and permanent diminution of the sight and hearing has resulted.

Dr. T. G. Simons moved that the resolution offered by Dr. Kollock be adopted, and that the details as to securing legislation be left to a committee. Carried.

Dr. Cornelius Kollock presented a paper entitled Complications in Ovariectomy, which, in his unavoidable absence, was read by Dr. C. W. Kollock. [See future issue of this JOURNAL.]

Dr. Howard Kelly, of Baltimore, who had been invited to make the Annual Address before the Association, delivered a lecture on The Diagnosis and Treatment of Uterine Fibroids and Visual Examination of the Female Bladder, both subjects being illustrated by diagrams on the board and by photographic plates.

On motion, the thanks of the Association were extended Dr. Kelly, and he was unanimously elected an honorary member of the Association.

The Committee on Nominations made the following report, which was adopted:

President—Dr. T. J. McKie, Woodland.

First Vice-President—Dr. J. L. Napier, Blenheim.

Second Vice-President—Dr. G. W. Morall, Barnwell.

Third Vice-President—Dr. D. S. Pope, Columbia.

Recording Secretary—Dr. W. P. Porcher, Charleston.

Corresponding Secretary—Dr. E. F. Parker, Charleston.

Treasurer—Dr. C. M. Rees, Charleston.

Dr. T. J. McKie, on being escorted to the Chair, thanked the Association for the honor they had conferred on him, and read letters from Barnwell and Columbia extending invitations to the Association to hold the next meeting there.

On motion it was decided that the next meeting be held in Columbia, beginning on the fourth Wednesday of April, 1895.

The following papers were presented, but were too late to be read :

Gun-shot Wounds, by Dr. George R. Dean.

Strychnia as a Curative Agent in the Treatment of Ascites, by Dr. T. J. McKie.

Some Clinical Memoranda, by Dr. C. R. Taber.

After a vote of thanks to the citizens, the local profession and the railroads for courtesies extended, the Association adjourned.

Notes of Practice.

Copper in Syphilis.—Dr. A. F. Price, of France, recommends the use of the salts of copper as a specific in syphilis. He claims it cures more radically than mercury. It must be given in very minute doses until a tolerance is established, then it can be used in doses of 1-32 of a grain. It is best combined with sulphate of iron.—*Kansas Medical Journal*.

Salicylate of Soda in Tonsillitis.—This remedy is recommended as little less than a specific in acute cases. It should be given as early in the attack as possible and in sufficient doses to cause ringing in the ears. Fifteen grains every three hours will usually cause this effect, when the dose may be diminished to 10 and then to 5 grains at the same intervals. It should be continued for a day or two after disappearance of the fever.

Treatment of Chorea by Arsenic, Hypodermatically.—The injection of a 5 p. c. solution of arseniate of sodium was given once daily, beginning with 12 minims and increasing the dose each

day by 1 minim. The patient was practically well in ten days, after receiving nine injections, the last one consisting of 20 minims.—*Archives of Pediatrics*.

Management of Sycosis.—Clip the beard very close, when an excellent soothing application is Lassar's paste, made as follows : Starch and zinc oxide, each two drachms, salicylic acid, 15 grs.; vaselin, 1 ounce. Before application, the crust should be removed by soaking with oil and washing with soap and water.—*Ec.*

Treatment of Meningitis.—In a paper read before the New York Academy of Medicine Dr. J. Lewis Smith said : "The intense congestion is to be relieved by the use of ice-bags applied to the head and spine. A long bag, partially filled with ice, may be applied with great advantage to the spine and the ice-cap to the head. A hot mustard foot-bath at the outset is an advantage, and in case of convulsions a child should be placed in a warm bath. Leeches to the temples and back of the ears are not to be advised. The disease is asthemic and

protracted and blood should not be withdrawn. Bromide of potash or soda is the chief standby. It should be given in large doses. He sometimes gives 4 grains every hour at one year. Ergot is also of advantage in some cases. He frequently uses a powder consisting of phenacetine, sodium bromide and caffeine. Quinine is not a proper drug in these cases. It is sometimes necessary to give chloral when the child is restless and does not sleep. In late stages iodide of potassium may be given. Nutrition should be maintained at the highest point possible, for these children often die of exhaustion."

Surgical Treatment of Empyema.—Dr. John Ashhurst, Jr., presented the following summary in a paper recently read before the American Association of Surgeons in Washington, D. C. :

1. No operation is justifiable unless the presence of pus is certain; unless thorough treatment by medicinal agents, blisters, etc., has failed; or unless the symptoms, dyspnœa, etc., are so urgent as to demand immediate relief.

2. The first operation should consist of simple aspiration, with antiseptic precautions.

3. When the fluid has partially reaccumulated, as it almost certainly will do, if purulent, incision and drainage should be practised.

4. Drainage is best effected by making two openings, one at the lowest point, and carrying a large drainage-tube through the cavity from one opening to the other.

5. Drainage should be supplemented by washing out the cavity with mild antiseptic fluids; when the lung has expanded and the discharge has nearly ceased, the tube should be shortened, the upper opening being allowed to heal,

and the tube then being gradually withdrawn through the lower opening.

6. When the lung is so bound down by adhesions that it cannot expand, resection of two or more ribs should be practised (Estlander's operation, so-called) in order to allow collapse of the chest-wall and to promote healing by bringing the costal and visceral layers of the pleura into contact.

7. The more extensive operations of Schede and Tillmans, while probably justifiable in exceptional cases, are not to be recommended for general employment.

Dangers of Cocaine Salves.—In the *Medicische Neuigkeiten* it is stated that a salve or solution of cocaine, even of 2 p. c., if applied to the breasts of nursing women, will produce erection of the nipple, and, what is worse, a suppression of the milk. This suppression is only temporary and disappears after discontinuance of the drug, yet it seems advisable to warn against employing cocaine in the treatment of fissures of the breast in nursing women.—*Ex.*

For Erysipelas, especially of the extremities, the following is recommended: Rubber tissue of sufficient size to extend about a hand's-breadth beyond the affected area is dipped in a 5 p. c. solution of carbolic acid and spread smoothly over the erysipelatous patch. A layer of cotton wadding is placed over this, and the whole secured firmly in place by a few turns of a roller bandage. After 24 hours this cotton wadding is removed and renewed, a larger piece of rubber tissue being placed over that already in position, if necessary, to cover in any increased area of the disease. The method seems to be strikingly successful in erysipelas of the extremities; less so upon the face and trunk. After several

applications all the rubber tissue is removed, large pieces of the epidermis separating at the same time. In the case of the lower extremities, an erysipelas commencing at the foot and extending to the leg, the affection has been completely arrested by a single application.

Expeditious Examination of Sputum for Tubercle Bacilli.—The following method is followed in the laboratory of the Medico-Chirurgical College, by Prof. Laplace :

1. Apply a small speck of recent sputum to a cover-glass, spread it out thin, and let it dry by waving it to and fro in the air.
2. Slightly heat the cover by passing it through the flame of an alcohol lamp, three times, rather slowly.
3. Stain the portion of now thoroughly

dried sputum by pouring upon it a few drops of the red stain (Ziehl's solution, composed of fuchsin, 1 part; carbolic acid, 3 parts; alcohol, 10 parts; water, q. s., to make 100 parts). While the solution is on the cover-glass, hold it in the flame of the lamp and heat until the vapor rises.

4. Decolorize at once, by immersion in water acidulated with nitric acid.
5. Pour some alcohol over it, and finish decolorizing by repeated immersions in the acidulated water, if required.
6. Pour some distilled water over the specimen and wash it until clear and apparently colorless.
7. Color the background by staining with methylene blue solution.
8. Dry the specimen.
9. Apply to slide and mount in Canada balsam.—*Four. Am. Med. Association.*

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Mr. Chas. C. Harrison has been elected Acting Provost of the University of Pennsylvania, to fill the vacancy caused by the resignation of Professor William Pepper.

The well-known sculptor, Mr. Ritter, of New York, is preparing, at a cost of about \$3,000, a bronze statue of Dr. Pepper, to be placed in the library building.

Dr. Wm. V. Keating died in New York, April 18th, 1894. In 1861 he was elected Professor of Obstetrics in Jeffer-

son Medical College, but held the office but a short time. He was the American Editor of Ramsbotham's "Midwifery" and Churchill's "Diseases of Women."

The General average (98 13-14) made by Dr. Hubert A. Royster, of Raleigh, before the Board of Medical Examiners, at its recent session, is the highest in the history of the Board. We heartily congratulate Dr. Royster on the high standard he attained and his excellent preparation with which to begin his professional career.

A SUCCESSFUL SPLENECTOMY.—Dr. J. Murphy, of Sunderland, England, did a splenectomy upon a woman 45 years old, on April 25th. The operation was undertaken for abscess and hypertrophy. The wound healed promptly, and at last reports the patient was making a satisfactory progress.

THE CONNECTICUT SCHOOL VACCINATION LAW CONSTITUTIONAL.—The Superior Court at Hartford, Connecticut, has decided, in a suit brought against the New Britain School Board to compel them to admit unvaccinated children to the public schools, that the law giving the school board authority to order all school children vaccinated, and to exclude those not vaccinated from the schools, is constitutional.

The following classification for infectious diseases was offered by Dr. W. H. Thomson, in a paper read before the New York Academy of Medicine :

1. Infectious diseases are due to the presence of their respective living micro-organisms in the body.
2. Infectious diseases are divisible into three classes: *a*, communicable; *b*, non-communicable; *c*, septic.
3. The communicable diseases are those whose origin is from an animal body, examples of which are small-pox, Asiatic cholera and tuberculosis.
4. The non-communicable infectious diseases are those whose origin is not from an animal body, but from a place or thing, examples of which are ague, yellow fever and miasmatic diseases in general.
5. The communicable diseases are divisible into two classes, according to the ordinary modes of their communication: *a*, into the contagious; *b*, into the non-contagious communicable diseases. The contagious communicable diseases are those in which simple prox-

imity to the sick is sufficient to communicate the infection; examples of which are scarlet fever, measles, small-pox, diphtheria, mumps, etc. Isolation of the sick in these cases is, therefore, needful to prevent infection. The non-contagious communicable diseases are those in which the communication is not by simple proximity to the sick, but through intermediate means of communication. Isolation of the sick with them, therefore, is neither needful nor effective in comparison with measures directed against intermediate means of infection; examples are typhoid fever, Asiatic cholera and tuberculosis.

6. The septic infectious diseases are those in which infection is introduced through a wound or abrasion; examples are erysipelas, hydrophobia, tetanus, etc.

Mr. Gladstone was successfully operated upon for cataract a few days since by Mr. Nettleship.

HEALTH OFFICER OF THE PORT OF NEW YORK—A MERITED TRIBUTE.—

"It is within the personal knowledge of *The Recorder* that while the World's Fair was in progress, the expression of opinion was placed on record at a gathering of its representative managers—which also included the representatives of the Government at Washington and of many foreign governments—that if Dr. Jenkins had not, in 1892, succeeded in holding the European pestilence at bay in the lower harbor of this city, the Fair would, in all probability, have been a failure. This, we believe, is the first time this great compliment to the efficiency of Dr. Jenkins has appeared in print. He is an ideal man for the place he holds, and he should be confirmed by the Senate. No one of his predecessors has filled the office one-half as well as he has done."—*N. Y. Medical Recorder*.

SYPHILIS IN TUBERCULOSIS.—The syphilitic infection prepares a soil well suited to the development of the tubercle bacillus, predisposing, especially, to pulmonary tuberculosis. It would appear that the syphilis, after the appearance of the tuberculosis for which it has prepared the way, decreases in virulence, or at least becomes latent.—Dr. P. Quindone, in *La Riforma Medica*.—*Medical Record*.

"Railway Surgeon" is the title of a new bi-weekly journal, which will be the official organ of the National Association of Railway Surgeons, and which began its existence with the issue of June 5th. The Railway Age will still contain a short department on Railway Surgery.

We notice the *Bulletin* of the Board of Health still comes with a one-cent stamp attached to the wrapper. This means that a sufficient number of paying subscribers have not been secured to give the *Bulletin* second-class mail rates. Have you sent in your subscription, Doctor? It is only *twenty-five cents*. Step into the post-office and get twenty-five one-cent stamps and send to Dr. R. H. Lewis, at Raleigh, and *be sure the stamps are dry* when you enclose them.

The North Carolina Board of Health at their last meeting in May, very wisely decided to hold special meetings apart from the Medical Society, in September and January. This is as it should be, and as these meetings will be held in different parts of the State, those Superintendents of Health who are near the place of meeting should be invited to attend the meetings and should make it their business to do so.

EXCURSION TICKET FOR THE CORPSE.—While an excursion train to Alabama was waiting at the depot, a negro made

his appearance at the ticket window and purchased a ticket for himself. Then he said to the ticket agent :

"Boss, I want 'nuder round-trip 'scursion ticket for a corpse."

The agent opened his eyes in astonishment. An excursion ticket for a corpse was something new to him.

The negro explained: "You see, boss, my brudder died yesterday, and I want to take de corpse down to Montgomery and let the family view the 'mains, and den bring 'em back to Birmingham and bury him. Dis will be a heap cheaper den fur de family to come up here."—*Exchange*.

HEALTH OF WILMINGTON.—The mortality report for Wilmington N. C., for May, 1894, shows :

	Whites.	Col.	Total.
Population.....	9000	13000	22000
Deaths.....	10	26	36
Death-rate represented..	13.3	24.	19.6

Meteorological.—Mean temperature, 70.5; maximum temperature, 90.3; minimum temperature, 48.8; clear days, 14; partly cloudy, 11; cloudy, 6; number on which rain fell, 12; total precipitation, 4.86 inches; mean humidity, 82.2; mean barometer, reduced, 30.

PROTRACTED GESTATION.—Dr. R. M. Kerly, Superintendent of the St. Louis Female Hospital, gives the following resume of a case of remarkably protracted gestation: Josie F., aged 32, nativity Indiana, was admitted January 16, 1892. This was her first gestation, and her last menstruation occurred on August 14, 1891. She had all the objective and subjective symptoms of pregnancy; and a careful examination showed that she was about five months advanced, as far as could be ascertained. Regarding her past history, she began to menstruate at the age of 14, and continued regularly every month, each occurrence lasting four to five days, up to the date

mentioned, August 14, 1891. She had suffered from no disease of the general system except those peculiar to childhood, excepting an attack of rheumatism. Her pregnancy pursued a normal course, and she was delivered at the Female Hospital on November 16, 1892, making the total sum of the days of gestation 461, reckoning from the last menstruation. This is unparalleled, and is therefore, in my opinion, worthy of record as a unique case of protracted gestation.

We note that Messrs. Wm. R. Warner & Co. have been awarded a silver medal at the National Medical Congress recently held in Rome.

Among the licentiates of the State Board of Medical Examiners were three female physicians. One of these was colored, and she is the first negro woman ever licensed to practise medicine in this State.

Dr. W. C. Galloway, who has been taking a special course in diseases of the eye, ear, nose and throat, has settled in Wilmington, where he will limit his practice to the above-named diseases.

The members of the Society are always pleased to encounter at the annual meetings their friends, the representatives of the wholesale pharmacists and instrument-makers. We had the pleasure of meeting in Greensboro Mr. F. W. Hancock, representing Messrs. Parke, Davis & Co.; Messrs. Sprague and Pryor, representing Messrs. Sharpe & Dohme; Mr. Cheers, representing Messrs. Wm. R. Warner & Co.; and Dr. G. H. Wilson, representing Messrs. Harvey & Co. Messrs. Bartlett, Garvens & Co., of Richmond, also had their representatives present with an elegant line of instruments, and as these gentlemen had no opposition on this occasion, they went

away with smiling faces and plethoric purses. The gentlemen representing the pharmaceutical houses were prepared to furnish members with samples of the excellent preparations of their respective houses.

The June issue of the *Cosmopolitan* contains an article on the preservation of health and muscular development, by Mr. Sandow, the famous strong man. The paper is illustrated by numerous photographs of Mr. Sandow, as he posed in various attitudes to bring into action the different sets of muscles. The paper is interesting and instructive as coming from the pen of a man that the writer has seen "put up" with one arm a brass rod with a man on each end. By the way, why not have this excellent magazine as a regular visitor to your home? If you are a subscriber to the JOURNAL, renew your subscription, paying a year in advance, and send one dollar extra, and we will send you this magazine for a year, though the regular price is \$1.50. There are always excellent papers and beautiful illustrations in this leading magazine, and you will not regret having secured it.

Dr. Bayard Holmes sits down awful hard on the Chicago City Board of Health: "The present spreading of the small-pox might have been avoided. It has fumigated infected places and small-pox has sprung out of the fumigation with fresh violence. Quarantine has only been an admonition—the inmates have gone their several ways to distribute the seeds of disease at random. No resident physician and only one nurse to 25 patients at the small-pox hospital. Eighteen patients have been found dead at home. The whole miserable history of the present recurrence of small-pox is a story of out-

rageous neglect of public health and human life."—*Ex.*

There is a chance for some one to discover a cure for the methylbenzone-thoxyethyltetrahydrophyridinecarboxylate habit.—*Ex.*

A real baby incubator can be seen at the Post Graduate Medical School. Statistics show that 70 p. c. of the incubated babies live, and that in all probability 50 p. c. of these would have died had it not been for the incubator. The baby need not be lifted from the "nest" until he becomes strong enough to remove with safety. The incubator is set upon bicycle wheels, so that it can be moved about whenever desired. The fresh air is heated by passing between two strata of hot water, and is kept in motion by a fan. The nest is shaped like a coffin, although its mission is to keep babies out of coffins. A thermometer keeps the attendant constantly informed as to the temperature. By an ingenious device the increase or decrease in weight of the little fellow is carefully noted, so that it may be known whether he is receiving the proper food and care. The top of the case is covered with glass. A tube leading into the interior supplies the infant with plenty of oxygen. Prematurely born babies and sickly ones are the ones cared for.—*Kansas Medical Journal.*

We are in receipt, from Dr. R. C. Ellis, Shelby, of a printed copy of the Constitution, By-Laws and Code of Medical Ethics, adopted and recognized by the Piedmont Medical Society. We notice that when a member is appointed to prepare a paper for a meeting he is expected to present it, for a fine of \$12.50 was imposed upon a member for failing to read a thesis when appointed to do so, and if the Orator failed in his duty, he was fined \$25.

Kassim Pasha, the Khédive's favorite officer, being Minister of War, was 60 years old and very fat, and was suffering with a direct scrotal hernia, which the surgeons of Cairo had been laboring for three days to reduce. Stercoraceous vomiting had set in and the patient was greatly depressed from the injections of an infusion of tobacco, which they had employed to induce relaxation. Dr. Edward Warren was called to see the patient and gave it as his opinion that the case was not hopeless. He determined to anæsthetize the patient and reduce the tumor by taxis, if possible, otherwise do a herniotomy. No medical man would assist him, declaring they would have "nothing to do with the murder of the Pasha." The private physician of the Khédive—a Frenchman, consented to administer the chloroform on condition, that Dr. Warren should assume *all* the responsibility. When about to begin the operation, he was taken aside by General Stone, the Chief of Staff, who said to him: "Dr. Warren, consider well what you are undertaking; *success* means honor and fortune for you in this country, whilst *failure* means ruin to you and injury to those who are identified with you." Dr. Warren replied: "I thank you for your caution; but I was taught by my father to disregard all personal considerations in the practice of medicine and to think only of the interests of my patients. I shall, therefore, do what my professional duty requires for this sick man and let the consequences take care of themselves." His efforts to reduce under anæsthesia were successful, and for his success he was decorated by the Khédive and made a *Bey*.

Dr. George H. West, formerly of Newton, N. C., has removed to Weldon, N. C., having accepted a position as physician to the State Farms, near that place.

Reading Notices.

SIR ANDREW CLARK—A REMINISCENCE.—This chief among the great physicians of London, Eng., has recently passed away in the 67th year of his age. He was Tennyson's physician and Gladstone's; indeed, so great was his fame that, when he was stricken with paralysis, 700 messages of inquiry came to his family in a few hours. He was a small, slight man, of what we call the wiry type, and a remarkable illustration of what "mind-cure" can do for a person who is determined to live whether or no. It is said that forty years ago, when he sought admission as a physician in one of the London hospitals, the choice fell upon him in preference to a number of equally eager aspirants, on the basis that he was "a delicate little fellow and would not live long anyway." He was condemned to death in his youth by the verdict of physicians, but eluded the same by a novel process—he flung himself into the hardest kind of work, paying no attention to his fears, but concentrated his forces altogether on his hopes.

When I went to see him he extended a hand white as a lady's and soft as velvet, and in a voice that matched the hand, went into a most careful diagnosis of my case; beginning with heredity and ending with the last morsel I had tasted that morning, he followed me through every lane of life, ancestral and individual; carefully examined my lungs and heart, saying (I think this was part of his mind-cure process): "Beautiful lungs, beautiful heart, no organic difficulty, over-work, nervous exhaustion. What you need is rest, pure air, cheerful companions, simple diet and no end of out-doors."

At my request he wrote down three aphorisms that he had used during our interview: "Labor is the life of life." "Ease is the way to disease." "The highest life of an organ lies in the fullest discharge of its functions." Here follow what he called his "temporary general instructions":

"On first waking in the morning sip

about half a pint of water, cold or hot; on rising take a tepid sponge bath, followed by a brisk general toweling. Clothe warmly and loosely. Avoid chills, damp and passive exposure to cold. Take three simple nourishing meals daily, and nothing between them."

"Retire as soon as possible after 10. See that your room is airy. Avoid self-notice and self-distrust. Shun ease and lead a full and regular, an active and an occupied life."

"Take as little medicine as possible; accept your sufferings; strength is perfected in weakness; in labor you will find life. If you are terribly run down some time, go away for a fortnight's rest, and with each meal take a teaspoonful of Fellows Syrup of Hypophosphites."

ALCOHOLIC EXCESS.—Jas. E. Henley, M.D., Campbelltown, Ga., says: I have used Celerina with the best results in nervous prostration, resulting from the various neuroses of female diseases, consequent upon uterine derangements, and in chronic alcoholism. I would specially state that, in my opinion, based upon an experience of 24 years in active practice, it has no equal. Some four months since I was called to see a man who had been on a protracted spree of three weeks' duration. The stimulus had been withdrawn, and marked delirium was fast approaching. After first giving a dose of calomel, I prescribed Celerina two ounces, Bromidia two ounces, directing a teaspoonful every two hours until sleep ensued. The second dose had the desired effect, and at the expiration of five hours, on awakening, he expressed himself as feeling much better, which was very apparent to his relatives and friends. I then continued Celerina in teaspoonful doses, every four hours for forty eight hours, then four times daily for seven days, at the expiration of which time, I dismissed the case. He is now well and hearty, and has no desire for his usual stimulant. Heretofore hissprees averaged

one in every two months, a period having already elapsed, to establish beyond a doubt, the efficacy of this preparation in all such cases. I shall continue to prescribe Celerina in my practice.

PIPERAZINE (BAYER) IN GOUT.—In the *Ephemeris of Materia Medica, Pharmacy and Therapeutics*, January, 1894, Dr. Squibb states: "Piperazine has increased in use considerably during the past year, and has been employed strictly in the same class of cases as for the past two years, with particular attention given to cases of gout. The explanation of its beneficial action has been that it dissolves the uric acid of the gouty diathesis, but this has recently been questioned." Although the exact physiological action of Piperazine has not been fully determined, an abundance of clinical evidence is at hand showing the curative effects of the remedy in gout and the uric acid diathesis. In these conditions it not only effects the disappearance of the uratic deposits in the joints and kidneys, but relieves the pains and other discomforts. Dr. Wittzack, who has had an extensive experience with Piperazine, reports amongst others a marked case of arthritis deformans in which its administration, internally and subcutaneously, alleviated the pain, removed the deposits in the joints and restored their function. A recurrence was prevented by the timely employment of the remedy, and the patient's general condition was much improved. Piperazine (Bayer) is a preparation of uniform composition, and its price has been reduced so as to place it within reach of the general medical public.

THE SEA-SHORE.—To those of our readers who wish to send their families or patients to the sea-shore during the summer, we would suggest a reference to the advertisement of Capt. E. W. Manning, which will be found in this issue. This delightful hotel is situated on the mainland, just at the edge of the still water, and its guests have the advantage of still-water bathing and shade, as well as easy access to the surf. Rooms may be had either in the main building or in cottages.

NORMAL LIQUID CANNABIS INDICA IN UNPLEASANT DREAMS.—Dr. R. T. Edes, in the *Boston Medical and Surgical Journal*, especially recommends CANNABIS INDICA for the relief of unpleasant dreams, transforming them into those of a more agreeable character. "The drug should not be given in so-called full 'doses,' that is, not sufficiently large to produce effects obvious to anyone but the patient, and he hardly should be sure of it. For example, if experiments have shown that 10 drops of the preparation to be used give rise, in the average person, to some excitement, rapid talking, laughter, double consciousness, etc., let the dose for the purpose we are considering be, say, six or seven. I have found that a very convenient plan of administration, admitting of varying the dosage, is an alcoholic extract, which may then be dropped in the desired quantity upon a spoonful of granulated sugar. I have frequently had occasion to prescribe CANNABIS INDICA, and have found Parke, Davis & Co.'s Normal Liquid always efficient in doses of 10 to 40 minims. It would undoubtedly give satisfaction in cases like the above-mentioned, where the dreams are known to be habitual and not due to the 'traditional mince-pie' or disordered digestion."

CHOLERA INFANTUM.—Physicians coincide in their views regarding the treatment of the Summer Diarrhœa of infants and children to a degree that enables it to be thus briefly summarized: Diet, emptying the alimentary tract, antiseptics. For the antiseptic treatment, Listerine alone, or Listerine, aquæ cinnamon and glycerine, or Listerine, bismuth and misturæ cretæ, will meet many requirements of the practitioner during the summer months. The following well tested formulæ are submitted:

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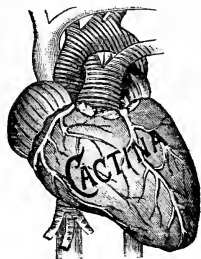
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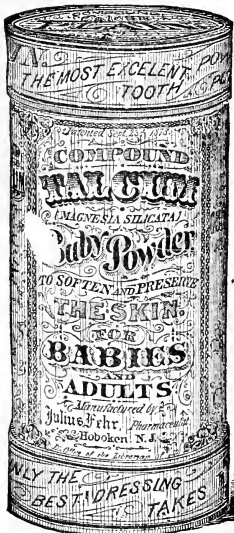
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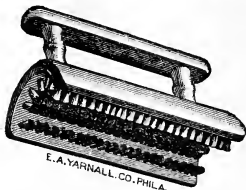
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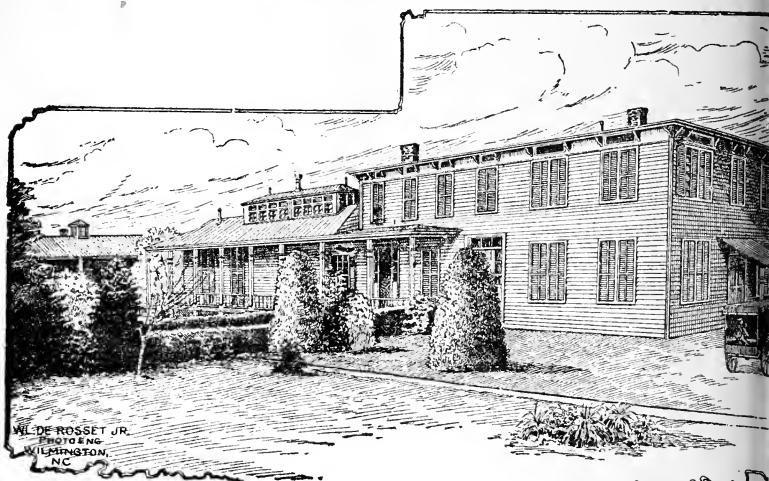
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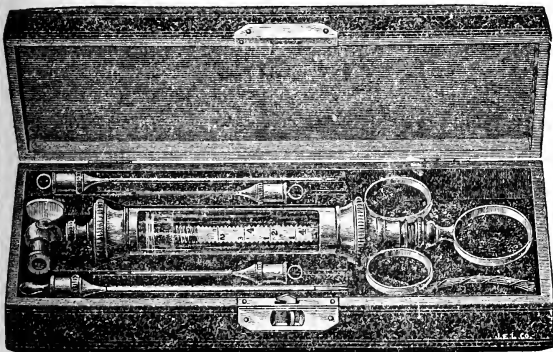
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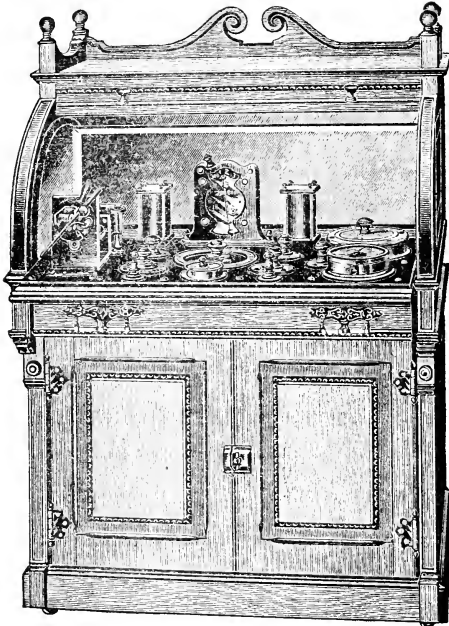
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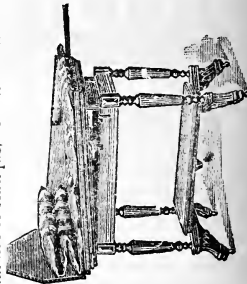
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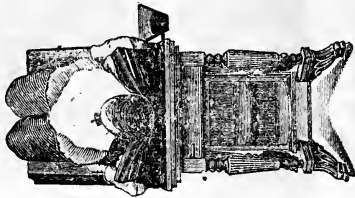
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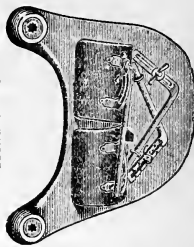
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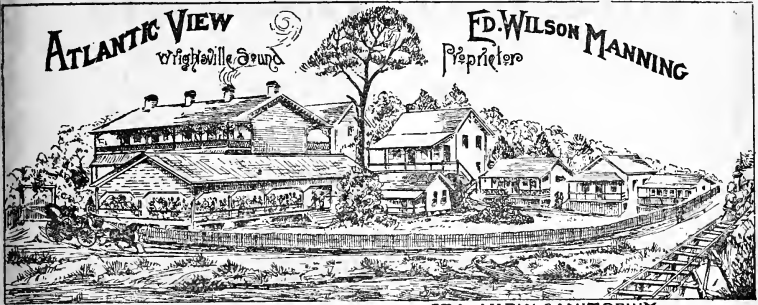


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Table of Contents, - - Page 5.
Index to Advertisers, - Page 6.

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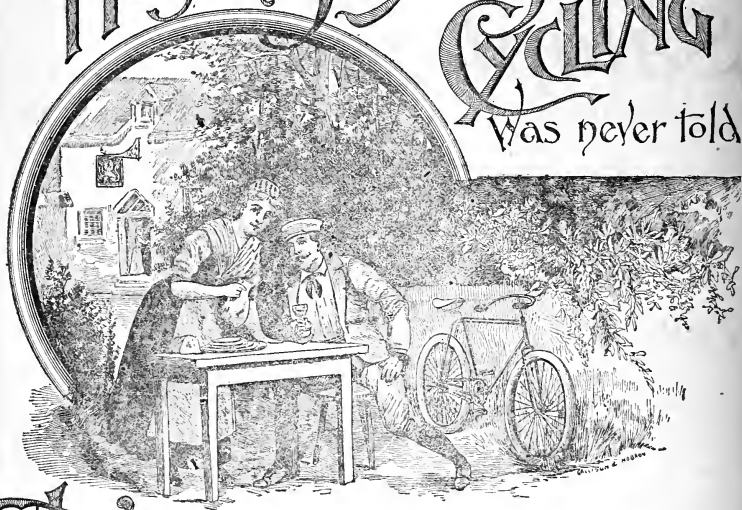
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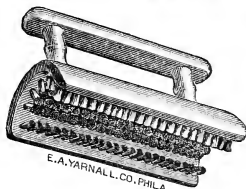
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Table of Contents.

Original Communications :

Presidents' Address.— <i>W. H. H. Cobb, M. D.</i>	1
How Shall the Physician Treat Pulmonary Consumption at Home— <i>Karl von Ruck, M. D.</i>	8
Annual Essay—The Family Physician in Relation to Certain Features of the Hereditary Factor of Diseases.— <i>J. Howell Way, M. D.</i>	16
Nasal Obstructions a Cause of Disease in the Eye as well as the Ear; with Report of a Case.— <i>Ed. F. Parker, M. D.</i>	21
Complications in Ovariectomy — <i>Cornelius Kollock, M. D.</i>	23
Our Indigenous Materia Medica.— <i>Thos Hill, M. D.</i>	25
Chloral Hydrate—Some of Its Uses.— <i>Ben. H. Brodnax, M. D.</i>	28

Selected Papers :

Dr. Wm. Thos. Coggin.....	30
---------------------------	----

Abstracts :

Tincture Ferri Chloridi in Typhoid Fever; An Improved Operation for the Radical Cure of Fistula in Ano; Treatment of Salpingo Ovaritis: Symptoms and Treatment of Cholera Infantum; Potassium Permanganate in Morphine Poisoning.....	34
Editorial:	
The Restriction of Consumption.....	39
Honor to Whom Honor is Due.....	40
Society Reports:	
Medical Society of the State of North Carolina.....	41
Correspondence.....	47
Miscellaneous Items.....	48
Reading Notices.....	50

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Index of Advertisers.

N. B. All copy of advertisements must be in hand by the 10th of the month to insure its appearance in the current issue

Fairchild Bros. & Foster.....	Cover	1	University of North Carolina.....	16
Parke Davis & Co.....	"	1	University of Pennsylvania.....	16
Pope Mfg. Co.....	"	2	University of Maryland.....	17
Mr. Fellow.....	"	3	Tulane University.....	18
N. Y. Pharmacal Co.....	"	4	University College of Medicine.....	19
W. H. Schieffelin & Co.....		1	St. Luke's Home	19
Battle Creek Sanitarium.....		2	Codliver Glycerine Co.....	19
E. A. Yarnall Co.....		2	Jefferson Medical College	19
C. F. Boehringer & Soehne		3	Wilmington City Hospital	20
Sharp & Dohme.....		4	Scott & Bowne.....	21
Henry K. Wampole & Co.....		5	H. O. Hyatt, M. D	21
For Sale.....		6	Lambert Pharmacal Co.....	22
Virginia Pharmacal Co.....		7	Mariani & Co.....	23
Queen & Co.....		8	Special Offer.....	23
Vaccine Virus.....		8	Walker-Green Chemical Co.....	23
Antikamnia Chemical Co.....		8	Thos. F. Goode.....	24
J. S. Tyree.....		9	N. Y. Pharmaceutical Co.....	25
H. A. Kaysan.....		9	Bartlett, Garvens & Co.....	25
Chas. Marchand		10	Harris Lithia Water.....	26
Wm. R. Warner & Co.....		11	Maltine Mfg. Co.....	27
Peacock Chemical Co—Sultan Drug Co.....		12	E. V. Richards.....	34
Battle & Co.....		13	Dios Chemical Co.....	28
The Sanitarian.....		13	McIntosh Battery Co.....	28
Od Chemical Co.....		14	Cal. Fig Syrup Co.....	29
Julius Fehr, M. D.....		14	Rio Chemical Co.....	30
Kentucky School of Medicine.....		15	Seaboard Air Line.....	31
Bellevue Hospital Medical College		15	Daggett Table Co.....	32
Chattanooga Medical School.....		15	Atlantic View.....	33
University of North Carolina—Med Dept.....		16	Svapnia.....	34
North Carolina Medical College.....		16	C. N. Crittenton.....	34

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Agents for North Carolina.

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NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

VOL. XXXIV.

WILMINGTON, JULY, 1894.

NO. 1.

Original Communications.

Contributions to this Department are solicited, especially from the profession of North and South Carolina.

Contributors may have copies of the JOURNAL mailed to twenty-five addresses free of cost. Reprints will be furnished at cost, in any number desired if application is made at time of sending manuscript.

PRESIDENT'S MESSAGE.

BY WM. H. H. COBB, M.D., Goldsboro, N. C., President of the Medical Society of the State of North Carolina.

(Read before the North Carolina Medical Society, May 15th, 1894.)

Gentlemen of the Medical Society of the State of North Carolina :

I find it difficult to express my high appreciation of the distinguished honor you have conferred upon me by electing me to the highest office within your gift. In accepting the honor thus bestowed, I have been ever mindful of the responsibilities, duties and labors coincident with this exalted position.

Fifteen years ago the Twenty-sixth annual session of this Society was held in this beautiful "City of Flowers," with Dr. Charles Duffy as its President and Dr. L. J. Picôt as its Secretary.

To-day we are the honored guests of a people unexcelled for their patriotism, intelligence, refinement and culture,

and whose open-handed hospitality is equalled only by the hearty appreciation of its guests—a people who take peculiar pride in their Guilford Court House Battle Field, rescued from oblivion by the indefatigable and herculean efforts of one of their most distinguished fellow-citizens, where monuments mark the patriotism of their ancestors—who point you to the Normal and Industrial School, Female College and excellent Graded Schools as evidence of their right to boast of being the "Athens" of North Carolina, and to the railroads bisecting their charming city, with the many evidences of a busy, prosperous and happy people.

Our pleasure at this meeting is sad-

dened by the absence of the smile of welcome and warm grasp of the hand of three of our former resident members, Drs. Hall, Alford and Gleen, whose kindly greeting we greatly miss.

The trust imposed upon me by our Constitution to present an Address before this body, creates many personal misgivings as to the subject of this paper and as to its proper presentation to this scientific body.

This is the forty-first medical year of this Society—an age that should command respect for its years, and that should carry with it that maturity of thought and action which should impress every one with its character and dignity. The honors, responsibilities and privileges of this body, as well as its dignity and progressiveness, should multiply with its added years and should be shared in by the whole profession of our State.

Believing that a short synopsis of my work would not prove uninteresting, I submit below a part of the duties performed by myself.

After the beginning of the new year I wrote to the chairmen of the various sections, reminding them of the fact of their appointments and detailing their specific duties, as well as those of their assistants, stating that the appointments were not intended as empty honors, but that they carried with them responsibilities and duties which this Society would hold them strictly to account for, and urged them to immediate action, requesting that their papers should be as practical as possible.

The Constitution and general laws governing this Society were remodelled and revised at our last meeting and copies of same sent to every member. My next efforts were in behalf of the 159 delinquents, who, through carelessness and procrastination had been

dropped from the rolls, or were not entitled to the Transactions of this Society. To each of the 66 former I sent a circular letter stating that, "according to Article XIX. Section IV. of the Constitution, you have been dropped for non-payment of dues for four years, and, unwilling that so valuable a member should be lost to the Society, I earnestly entreat you to be present at our Greensboro meeting, May 15, 16 and 17 next, and be reinstated according to the law above cited."

To the 93 others a circular letter was transmitted, adducing Article IX. Section III., informing them that the Treasurer reported them as not entitled to receive a copy of the Transactions, and requesting them to please forward dues at once to the Treasurer and be reinstated, as I earnestly desired that no member be lost to the Society. While many of these notifications may not be heeded, for it is well known that doctors as a class are careless and wanting in business tact and method, and the "Tar Heel" M.D's are no exception to this rule, yet I received many letters thanking me for the information conveyed and promising to comply with the laws.

I next addressed about fifty letters to prominent members of the Society in different parts of the State, expressing the desire to enlist under our banner all worthy regular practitioners of medicine, and requesting that they favor me by furnishing me a list of all such in their respective counties, but by no means give me the name of any physician for whom they were unwilling to become sponsor, and under no circumstances return the name of any charlatan who had gained admission into the medical ranks by perjuring himself in swearing that he was regularly practicing medicine or surgery prior to March 7th, 1885,

when he was only known as a cancer quack, horse doctor, or other "toad stool." To this circular I received many valuable replies, but some of the brethren simply copied from the records of their Superior Court clerks all who had registered. Unable to distinguish the regular from the spurious in these cases, the lists were valueless; but to the others, as far as possible, I have sent out over 250 circular letters, as follows:

My Dear Doctor:—The objects of the Medical Society of the State of North Carolina are: "The advancement of medical knowledge, the elevation of professional character and the promotion of all measures of a professional nature that are adapted to the relief of suffering humanity, and to improve the health and protect the lives of the community." Surely you can heartily subscribe to these articles. I most earnestly invite you to join our Society at the annual meeting in Greensboro, May 15, 16, 17 next, and aid an organized body in the upbuilding of legitimate medicine and the overthrowing of quackery and incompetency in all its phases. It is not only an honor to be a member of your State Society, but you will derive great benefit by attending its meetings, forming firm and lasting friendships among your professional brethren, and catching new ideas from the discussions of the various subjects presented, and from the Society honors to which you may attain.

Trusting that I may have the pleasure of meeting you in Greensboro and the honor of greeting you as a member of our Society, I am

Yours, etc.

It is to be earnestly hoped that many valuable additions will be gained by this last appeal.

I find upon the roll of members one female physician, Dr. Annie L. Alexan-

der, of Charlotte, who passed a successful examination and was admitted to membership at our Durham meeting in 1885. Finding no record of her attendance since, and believing that the time has arrived when the medical profession of North Carolina should recognize the equality of the sexes in our profession, I made a personal appeal to Dr. Alexander to attend this meeting and present a paper on the Physical Education of the Southern Girl, which, I am happy to state, she has consented to do, and I bespeak for her an attentive and respectful hearing.

My great aim has been to improve the *esprit de corps* of the members of this Society and awaken a greater interest in its success and advancement among the vast army of the profession in the State, who have hitherto kept themselves aloof from us

A false idea has gone abroad throughout the State that this honorable body is controlled by and run in the interest of certain rings or combinations. I can truthfully proclaim that under its present Constitution it is so broad-gauged and democratic that no ring or trust can control it, but that true merit and devotion to its welfare and progress shall be its ruling and guiding spirit. I believe in that sound democratic doctrine that "to the victor belongs the spoils," and that the honors of this Society should be conferred upon those members who, by their devotion to its advancement, their earnest zeal and frequent attendance deservedly merit such recognition.

Only a few days since a very worthy and competent physician, when approached by me with the request that he join our ranks and aid us in our combined efforts at alleviating suffering humanity and fighting the "miserable gaurilla," as our good friend Dr. O'Hagan so justly terms them, replied that several

years since, soon after graduating, he visited an adjoining county where this Society was then in session for the express purpose of joining the same. Upon making known the object of his visit to an old member, the latter advised him against such a waste of treasure and time, stating that he had been a member for several years and had received no benefit from it whatever. This argument deprived this Society of a valuable member until this meeting. A careful perusal of our Transactions for a number of years failed to show that this old member ever presented a paper, participated in the discussions or showed other evidence of his fitness for membership.

Even if we be drones and work not, our mere presence and attention to the order of business, listening to, if we do not take part in, the discussions of practical reports, cannot fail to teach even the wisest some important knowledge and send us home better qualified to serve our clientele, and with larger and broader views of the ability and usefulness of our brethren. In after years, when time lays his heavy hand upon us and our usefulness is fast fading from view, in turning over the leaflets of the book of memory no page will shine brighter than that on which is inscribed the pleasant and profitable communion with our professional brethren at our annual Society meetings.

THE GENERAL PRACTITIONER AND THE GENERAL SPECIALIST.

The contagiousness of rapidly rushing into "specialism" has so fastened its grip upon many of the younger members of the profession who view only the large and lucrative practices and incomes of successful specialists in the large cities, that I would fain enter an earnest

protest, at the same time make an urgent plea for the general practitioner whom I have the honor to poorly represent; not that I propose attacking specialism in its true sense, but the pseudo brand; for specialists have grown to be a necessity, and there should be no antagonism between the general practitioner and the genuine specialist, for each is auxiliary to the other.

To become a specialist in the real sense of the word, should require far more time and preparation than the average aspirant is willing to expend. In the first place, like every candidate for any medical honor, he should receive a thorough collegiate, or at least a classical education; and I think, *par parenthesis*, that this Society should express itself in unmeasured terms of disapproval of any person being in any way encouraged to choose this noblest of all professions, save only the ministerial, until he has received at least a classical education. He should be well-grounded in the foundation principles of medicine, and after receiving his diploma enter a general hospital for a sufficient length of time, then a general practice, preferably as a partner with an old experienced practitioner for a term of years, and, after spending several months in a post-graduate school, he would then be prepared to practice his chosen branch of his profession. The knowledge gained in a general practice will avail much in attributing many ailments, apparently local, to a general constitutional cause.

Specialists have so increased within the past few years that every part of the human anatomy is claimed by them, beginning with the alienist and ending with the chiropodist. The relations between some gynecic and general surgeons are becoming somewhat strained, as the former claim that any invasion of the abdominal or pelvic cavity by the

general surgeon is unwarranted, save only in abdominal and pelvic wounds, intestinal suturing, resection or anastomosis, and accidents necessitating abdominal section. It seems fittest that the gynecic surgeon should rightfully claim all operations within the female pelvis and abdomen, and relegate to the general surgeon operations in like cavities in the male.

While the general practitioner will remain a necessity in the towns and rural districts, his field has been so encroached upon in the large cities that his chief professional duties consist in diagnosing his cases and then witnessing the specialist appropriate both his patient and his pay.

It is the imperative duty of every general practitioner to become a general specialist in certain cases, when the services of a competent specialist cannot be commanded. He should so post himself in the technique of the graver operations that when necessity demands he should use that conservatism in surgery which means the alleviation of pain and the saving of human life. I refer notably to laparotomies for ectopic gestation with rupture, hemorrhage and shock, where death is certain without immediate surgical interference; for intestinal obstruction when all other means fail, not delaying the operation too long; and for wounded intestines and suppurative appendicitis, for pus demands removal as soon as diagnosed; for symphysiotomy or Cæsarean section, when a contracted pelvis disputes the right to "pass beneath that triumphal arch under which every candidate for immortality must pass," when the lives of both mother and babe are in imminent peril.

While it is impossible for the general practitioner to do original work in all directions, and it is hardly feasible to be sufficiently familiar with all medical

science to practice it in a way creditable to himself and with justice to his patients, yet every physician who is imbued with that spirit which distinguishes the man of science from the mechanic and money-maker, wishes at least to know the most important discoveries, inventions and events that are made and occur in any part of the vast field of medical science, in the widest sense of the word.

Many of the general practitioners of North Carolina are so accustomed to do successful general and gynecic surgery, that they would be classed as specialists in any other Commonwealth; their results will compare favorably with those obtained in the largest cities possessing the advantages of hospitals and trained nurses. They are the peers of any in these great United States; and we should disapprove the practice of sending all kinds of surgical patients beyond our borders for operation.

THE NORTH CAROLINA MEDICAL JOURNAL

I take this occasion to call upon the profession generally, and the members of this Society specifically, to subscribe for, and contribute to, the NORTH CAROLINA MEDICAL JOURNAL, our recognized organ. It is a duty we owe ourselves and the profession at large to report through our home journals all cases of an interesting character, medical, surgical and gynecological. Be sure to report your unsuccessful cases, for we learn much by our unfortunate results, and reliable statistics cannot be obtained unless our failures as well as our successes are recorded.

THE CHARLOTTE MEDICAL JOURNAL.

The *Charlotte Medical Journal* is another worthy candidate for our support. State and professional pride should

prompt us to sustain our home journals. Other States in this progressive era have numerous medical journals while we have but two, and it should be the duty as well as the pleasure of every North Carolina medical man to give them both his support.

STENOGRAPHER.

The duties of our efficient Secretary are such that he cannot possibly report thoroughly the discussions, which are the most valuable and practical part of our meeting; so, after conferring with him, we decided to secure the services of an expert stenographer, that full and reliable reports can be made. It is only necessary for me to inform you that our reporter is a lady, to secure for her that respect and courtesy her sex always receives at the hands of professional gentlemen.

CONSTITUTION, BY-LAWS AND CODE OF ETHICS.

I would respectfully recommend that the Constitution and By-Laws of this Society, together with the Code of Ethics of the American Medical Association, be printed in each year's Transactions of this Society, so that every member can have a ready reference to our organic laws and govern himself accordingly; and each new member be presented with a copy of the same in the Transactions of the preceding year.

LIBRARIAN OR PERMANENT SECRETARY.

I would respectfully recommend the amendment of our Constitution so as to include in the list of elective offices a Permanent Secretary or Librarian, who shall reside in the City of Raleigh; that he shall keep all records, files of proceedings and other property of this Society; not necessary for the Recording

Secretary; that he shall exchange the proceedings of this Society for those of the various State, national and other medical, surgical and special societies, and keep the same properly indexed, and have charge of all books, periodicals, instruments, pathological, anatomical and other specimens donated to or otherwise obtained by this Society; and shall loan the same to the members thereof, under such rules and regulations as we may adopt.

The reason for suggesting the above recommendation is that we may have some safe and permanent place of deposit of valuable publications and donations which we hope to receive in the near future.

The Recording Secretary has only one trunk of limited capacity, and doubtless many valuable papers have been lost for want of proper transportation facilities and place of deposit, by frequent change of secretaries.

I take this opportunity of appealing to the profession of North Carolina to donate to this Society books, periodicals, instruments, anatomical and pathological specimens, etc., etc., which shall be a nucleus for a library and museum. Such gifts would be monuments of their love for their profession, and far more beneficial to their brethren than the paltry sums obtained by post-mortem sale could be to their heirs.

We shall eagerly watch for the first donation, whether from a living brother, resting from the active pursuit of his profession, or provided for by the will of some departed and beloved member.

OUR DEAD.

Since our last session several of our brethren have been called from labor to their rewards. Among those who have passed from the isle of time to the main;

land of eternity are four of our oldest, best beloved and most honored ex-presidents.

Dr. N. J. Pitman, of Tarboro, who joined the Society in 1850, was President in 1860 and 1861. He so loved his Society that he offered an annual prize of \$100 for the best scientific and original paper, and one of the last acts of his life was the signing of the check for the prize awarded at our last meeting.

Dr. E. Burke Haywood, of Raleigh, who became a member in 1850, was President in 1869. Honored and loved by all who knew him, his distinguished ability was only equalled by his modesty and affability.

Dr. J. J. Summerell, of Salisbury, joined this Society in 1855, was President in 1862. He was a zealous, faithful member, and died a triumphant Christian, December 17th, 1893.

Dr. E. A. Anderson, of Wilmington, became a member in 1852, was President in 1870, and actively engaged in the practice of his profession for nearly half a century.

I leave to our Obituary Committee the loving duty of offering fitting tributes to their memory, only recommending that an appropriate memorial page be assigned to each in our Transactions.

In conclusion, let me beg that in future our chief aim shall be to preserve the honor of our profession, to advance the interests of our Society, to cast aside all improper personal feelings, bury the past, as far as personal differences occur, remembering that "we be brethren." Live the golden rule; do not trust to the popular praise of the multitude as your guide in the performance of your duty to your fellow man, but always keep prominently in view the Fatherhood of God and the brotherhood of man; for applause is so evanescent that

one day it is lavishly and possibly unworthily bestowed, the next grudgingly and maliciously withheld.

"To-day, praised and enthroned,
To-morrow, cursed and stoned."

While you should ever keep in remembrance that "the laborer is worthy of his hire," that "he that faileth to provide for his own household is worse than an infidel," and that you should exact just compensation for services rendered, yet your chief aim in life should not be to make money out of your profession. The warm grasp of the hand, the grateful appreciation of services rendered, and the hearty "God bless you"! from a poor but loyal patient, has far more enriched my soul than the shining coin or bacillus-laden bank notes could my purse.

Do not become hypnotized by the dazzling success and questionable means resorted to by some in our profession; but patiently, modestly and slowly win your way by means that will ultimately secure the approval of your own conscience and the honor and affection of your confrères, remembering that it is far better to listen to the plaudits of your inward monitor than to the clink of gold or the clarion of fame.

To facilitate the business of this Society, I would respectfully suggest that before papers are presented a rule be adopted limiting the reading of all papers to 20 minutes, except by consent, and the discussions to 5 minutes by each speaker, with the privilege of the floor only once upon the same subject, and that the author of the paper be allowed to close the debate.

To the Committee on Credentials I would urge that special inquiry be made as to the moral character of all applicants, and to this end see that all applicants are vouched for by two members

of this Society, or other responsible parties.

Remember that only *regular physicians*,

and not perjured quacks, can cross our threshold. See Constitution, Art. 3, Sec. 2; also Art. 7, Sec. 1.

HOW SHALL THE PHYSICIAN TREAT PULMONARY TUBERCULOSIS AT HOME?

BY KARL VON RUCK, M.D., Asheville, N. C.

(Read before the North Carolina Medical Society, May 15th, 1894.)

I asked this question some fifteen years ago of an eminent medical authority. His answer was: "Make your patients as comfortable as possible until they die;" and, indeed, the few and doubtful recoveries at that time seemed almost to justify such advice.

This hopeless view had so well taken ground for years past, that it was then and is still, in a measure, a great obstacle toward systematic and well-directed efforts for successful treatment.

Happily the last few years have awakened an interest which has already brought fruit, and the better outlook is becoming a wholesome stimulant to further efforts.

In answering my question, I would call attention, in the first place, to the necessity of an early diagnosis, for it is only in the earlier stages that we can hope for the best results, and the chances diminish in proportion as the disease is allowed to advance.

In a paper written by me and published in *Gaillard's Medical Journal* for October, 1891, I considered some of the causes for the frequent failures in this direction, and pointed out several means to their avoidance, and, inasmuch as I cannot repeat what I stated there, I shall be glad to furnish reprints to any physician who may wish to read it.

If the diagnosis is made early we find

that the general health of the patient is, as a rule, still comparatively good, the resisting power of the organism and its power to respond to our efforts being good in proportion and in this early stage, the disease yields readily to a systematic general management consisting of dietetic and hygienic measures, with such medicinal treatment as may be indicated in the particular case.

This general management is in a sense preventive; that is, it has for its object the removal of every obstacle to a favorable progress, and at the same time it is curative, in favoring nature's efforts for repair and recovery. Unless it is painstakingly and persistently followed, all other measures will, as a rule, prove elusive, the patient will relapse again and again from his own errors and indiscretions, and neither climate, tuberculin, inhalations, creasote or any other thing or mode of direct treatment can prevent such relapses or atone for the otherwise faulty course the patient pursues.

With a large experience both in private and institution practice, I find that there is only one safe and comparatively sure way to keep the patient on the road to improvement and recovery, and that is by controlling him in all his daily life and conduct, by constant supervision and by observation of his needs and

timely advice and insistence on our part, that it is complied with.

Such personal control must extend to every detail, it includes regulation of diet, clothing, rest, exercise, sleep, personal hygiene, mental and physical exertion, with instructions as to how, when and where, and proper explanations as to why this, that or the other is to be done or avoided, and admonitions as to the dangers incurred in retarding improvement or causing relapse, if the patient come up to our requirements; thus the management is a continuous course of instruction which the patient must learn and profit by, and is necessary, in the first place, to improvement and recovery, and indispensable to their maintenance and permanency, for the recovered patient cannot return to his previous habits, exposures and indiscretions without again jeopardizing the result obtained. Inasmuch as such a systematic management can be carried out only in an institution for the special purpose, and inasmuch as without it the recovery of the patient becomes, as a rule, a mere matter of chance and rare accident, I propose the establishment of institutions at home regardless of the climatic conditions of the particular locality, especially for that class of patients who, either for want of means or other reasons, cannot be sent away from home.

The important object of prevention will largely be subserved if my proposition for the best mode of treatment is carried out, and, while we may ordinarily instruct our patients as to the dangers from tubercular excretions, especially the sputum, few are intelligent enough or appreciative enough to comply with our requirements until we thoroughly train them. Thus a patient will readily avoid spitting in his handkerchief or upon floors or carpets, but

thinks nothing amiss if he cough with his mouth wide open and project small particles of sputum about him, or if small particles of sputum adhere to his moustache or lips, to wipe them off with his handkerchief. Every patient taken out of his home to a sanitarium or hospital, means one less centre for the infection of others; for in private practice the necessary training, supervision and control are not often feasible and preventive measures are at best only partial.

This is still more true in the treatment and management we advise when our patient remains at his own home; our visits or consultations are then only sought when the patient feels not so well, and often then only when he has exhausted his own and his neighbor's remedies.

Instead of seeing our patient for the purpose of maintaining continuous improvement, we attend him to help him over his severer relapses, and these partially recovered from, the patient again sails the leaky ship of health until he founders upon the next rock obstructing his path to recovery. Thus the way to the consumptive's grave is paved with relapses, and the relapses are due, for the most part, to faulty conduct, to insufficient judgment, to ignorance, to want of self-control and to the folly of mistaking an improvement for recovery and abandoning too early the prescribed course.

These relapses are, as a rule, preventable, but only under the constant and unremitting vigilant supervision of the experienced physician or his trained assistants, who understand and appreciate their causes.

Human nature is frail and the consumptive is human, made more frail by disease, and he, of all others, is overconfident that by some special provi-

dence he will escape the fate that he naturally points out for his consumptive neighbor.

He protests that he is going to follow our advice to the letter, and flounders on the slightest occasion. If he improves, there is no period so dangerous to the consumptive as that when he is becoming conscious of his improvement; he then believes himself secure on the high-road to recovery, and often at a time when the slightest over-exertion, an injudicious meal, or any other indiscretion, can readily throw him back into the deep sea of re-advancing and destructive disease. One such experience is seldom enough, he finds every excuse to shield his own responsibility, and if he can blame nothing else, it must be the climate or the weather, or the last dose of medicine that failed to agree! As a rule, he is not satisfied until he has repeated his fool-hardy trifling and has relapsed over and over again.

A radical improvement is with him a sure cure; he then wants to return to his previous condition, habits, modes of life and business, and he does this frequently in spite of the best advice—in the end to his sorrow.

Such patients need control and the strongest influence to keep them upon the right path and to make them pursue it until they are safe.

Consider, then, how hopeless it is for the patient who consults us or calls for our advice, when he considers it necessary, and then follows as much of it as he thinks proper for himself, to really make a recovery in private practice.

The patient, and, indeed, some physicians, also, cannot appreciate how little it takes to cause the scale for a time to balance on the wrong side, simply because they have not had the experience and opportunity for observing, and by the time he has learned it for himself, if

he ever does, he is advanced beyond the hope of recovery.

Thus life after life is lost, and we bewail the fatality and regret the great mortality of the disease, which in the earlier stages is quite easily cured, indeed, we go so far as to question the possibility of a cure, while in my own as well as in other well-conducted institutions, especially when combined with favorable climatic conditions, recovery in the early stage is the rule.

Even without the advantage of climate, a good majority of such cases can recover, a fact which I have heretofore demonstrated in my own experience.

The advantage of institution treatment at places offering also the advantages of a favorable climate are for the present only within the reach of those who can leave their homes and meet the necessary expenses; the great majority of patients belong to the poorer classes, and so far as permanent results are in prospect for them, we still do little more than to "make them comfortable until they die."

I am, however, satisfied that if my proposition can be carried out (for their treatment at home) many more cures will then be accomplished. That they may be treated in time, it is essential that the patient or his responsible friends be early informed of the nature of the disease and of the probable outcome if our advice should be disregarded.

To establish a special hospital or sanitarium, where each physician in a town can place his patients, requires the concerted action and interest of the local medical men, and I doubt if they could consider a more important, more life-saving or a more humane subject.

Once united in the desire to accomplish this, the profession in any place have sufficient influence to interest their well-to-do friends and acquaintances,

and ways and means will readily be found by such joint efforts for obtaining a suitable building and for its equipment and maintenance.

If an ideal establishment is not at once within reach, the best that is obtainable will, no doubt, answer the purpose, and if you will insist upon the advantages and present the subject properly to your tubercular patients, you will have little difficulty in inaugurating the good work by their seeking admission. Many of them will be able to pay their way and the institution can soon be self-supporting. I have demonstrated this, also, some years ago, in a locality where the climatic conditions are highly unfavorable, and where the mortality from tubercular disease is very great. I established there a sanitarium for consumptives unable to meet the expenses of distant travel for climatic benefit, and, although single-handed and ridiculed by some of my colleagues, the establishment paid expenses for its maintenance from the first month to its close.

With much less experience on my part and without the advantages of climate, the clinical results for all stages obtained in 58 cases treated (ascertained two years after the institution closed) were 41.5 p. c. of recoveries and 24.1 p. c. of radical improvement, and I considered them so satisfactory and beyond my then most sanguine expectations, that they determined me to devote myself entirely to the special work in question.

Why cannot this also be done in the larger towns of our State?

Knowing, as we do, how hopeless the outlook is from the usual treatment and management in the patient's own home, knowing also how few recover, even of those who travel from one climatic resort to another, and in the light of

the good results obtained in institutions, why not, at least, make a trial?

You will indeed find that your results from such a trial will by far exceed those which your wealthy patients obtain in their customary, unguided efforts and endeavors to effect a recovery by the employment of climate combined with occasional professional advice, wherever and to whomsoever chance and faith lead them. Look back over your practice among such patients and see how many have really recovered.

What they do accomplish is perhaps an occasional recovery, but more frequently only prolongation of life, not so much because the climate helps them, but because they avoid the changeable and inclement weather at home, and therefore are less liable for the time to the relapses from exposure.

They rarely make use of the climate in a manner so that its greatest benefits can be derived—they know not how—and think so long as they breathe the air out of doors it will in some mysterious way remove their tubercular disease, and many physicians help them to believe so.

Allow me to give you a familiar history of such a case, the son of wealthy parents, who spent much money and got nothing for it, and in whose case success would in all probability have followed in the most modest special institution at home without the advantages of climate; and such cases occur by the thousands. In the particular case to which I refer the diagnosis seems to have been made early, at least the home physician prescribed creasote in increasing doses upon the first consultation.

Six months after he first consulted his physician he had a slight hæmorrhage, which gave the signal for change of climate, it being at the same time the season of beginning inclement weather

at home. Coming to Asheville, his mother brought him to me for examination, but conditioned that her son should not be told anything about his disease—she alone was to receive my opinion. I found infiltration of one upper lobe with circumscribed apex catarrh, tubercle bacilli in the sputum.

My advice was disregarded, because its adoption would undeceive the unsuspecting victim, who believed he had only a bad cold settled in his bronchial tubes, and the mother was satisfied the climate had done him already a great deal of good, after having been in three days!

He remained some four or five months, gained some weight and coughed less.

They returned home in the spring and again to Asheville in the autumn.

I was again consulted—this time an attack of malaria (?) in the past summer was added to the history, but I found a small, suppurating cavity and the patient suffered from septic fever. The opposite lung had also become involved.

Remaining in Asheville a few months, they started for Colorado, concluding that this time the climate was not agreeing, and no wonder, as the patient's conduct and treatment were anything but conducive to his improvement. He was, indeed, out of doors almost continuously, but it was either on foot, carriage or horseback riding, and the home physician treated the case by letter, rather in a symptomatic way, unless the creasote, which was continued, was supposed to aid the climatic cure. He was taking phenacetine for fever, an opiate mixture for cough, atropine for night-sweats, a bitter medicine to give him appetite, a powder to make him sleep, and pepsin to digest his food. He was very anæmic, but strange to say, he had neither iron nor arsenic, which would have completed the formidable array of

drug remedies. This was a year ago. The past winter I received a letter from the mother from San Diego, Cal., in which she stated that neither the Colorado nor the California climate 'agreed with her son, and that he was getting thinner and weaker all the time, and if I thought I could cure him she would now bring him to my institution as soon as he was able to travel. Of course I disclaimed any such ability, and I doubt that he ever became able to travel in search of the curative climate again.

The culpable ignorance and blind faith of such people would be amusing if the results were not so sad and serious in the end.

The terrible lesson such cases teach we can all appreciate, but you will appreciate it as you never have before after you have established your institution in your own town or city and have observed how readily your patients respond with improvement, and eventually with lasting recoveries, to your efforts there, especially when they are made in an early stage.

Your institution will outweigh any climatic advantages, and so long as you cannot have the climate and institution both, your patient will have a much better chance if he relinquish the former in favor of your constant, personal control of his mode of life and of his hygienic and dietetic necessities.

In this manner you will prevent relapses, you will be clearing the way of all obstacles and of detrimental influences to nature's ever present efforts to repair and to restore. You will then be able to aid her intelligently, in the light of close observation and experience, with such therapeutic measures as are at our command, and which you can there employ with regularity, system and precision.

Your patient's opportunities for errors

and relapses will be largely diminished the moment you have thus taken charge of him. You will then apply the treatment of pulmonary tuberculosis as a comprehensive whole, based upon the broad principles of reconstruction and nutrition, and while you will have no cure-alls, you will find that we are by no means barren of resources, and that many of our therapeutic agents can come to your aid, at one time or other, to meet particular indications as they arise. You will find that the air in your own locality is, after all, not so bad.

Thus the treatment in an institution is for the day, for the hour—what you may require of one patient you may have to forbid another, his present needs and condition governing in all things, and at all times in pulmonary tuberculosis as well as in the treatment of other diseases.

Once your institution established, you will have little or no difficulty in its management, and until your personal experience is ripe and ample, you can be sufficiently guided by the experience of others who have met with success in institution treatment, until you shall add your share to our knowledge, in still more successfully dealing with this most important, but most neglected, of all the diseases we are called upon to treat.

If thus my experience could be of any service to the medical faculty of any community in this State who will take the initiative and establish an institution for phthisical patients, I should gladly give them the advantage thereof and as much of my time as will be needed to get it under way.

Such an institution would grow, would reflect credit upon the town or city, would be a source of congratulation and satisfaction to its promotor and become a means of saving many lives

otherwise almost lost, and a blessing to all concerned.

Desirable as the establishment of such institutions appears, benefits from their establishment are a matter of the future, and even then the number of patients that could take advantage of them will be limited.

Confronted with tubercular patients now, whom for the present we must still treat at their own homes, I will briefly outline what, in my judgment, would give them the best chance.

This chance, as already stated, depends very largely upon the coöperation of the patient, but if he is not properly instructed, or if his conduct and mode of life is nevertheless faulty, our efforts will prove of little real benefit. We must therefore see to it that he not only understands what we demand of him, but also that he is thoroughly convinced of the importance of his part in his treatment.

In a general way, the management consists in absolutely forbidding all physical and mental exertion to a degree which causes sensible fatigue or shortness of breath in the individual patient, and he must watch this himself; all exercise which he, however, can take during hours when he is free from fever, without reaching fatigue or shortness of breath, is beneficial.

The patient must keep a record of his temperature, and when fever is present the record must be made at frequent intervals, at least until we know the usual time when the temperature begins to rise. The latter reaching 100° F., the patient must go to bed, in a well ventilated room, and keep the recumbent position until the fever has subsided. He must on the following day anticipate the fever of the previous day by going to bed an hour earlier.

Elevation to 101° F. or over requires

the application of an ice-bag over the heart until the temperature is reduced to below 100° F.

In all fever patients and in other cases where there is pulmonary congestion, irritable cough or pain in the chest, a cold wet compress encircling the chest, covered with dry flannel, should be applied at bed-time and remain all night.

A cold sponge bath, followed by vigorous dry friction, must be given every morning. Menstruation is no counter indication.

In the absence of fever the patient's diet should be mixed and generous, and if he has not sufficient appetite, milk must be given freely between meals.

Fever patients should, as a rule, receive only liquid food, with bread and butter added, while the temperature is elevated, the heartier meals must be given when fever is absent.

The patient's out-of-door life is important at home as well as at climatic resorts. Whenever the weather is favorable he should be out of doors, not, however, constantly on his feet or in a carriage or on horseback, conditions which come within the limit of exercise, but quietly sitting or reclining upon a porch or place protected from exposure to wind and dust. The inhalation of dust is always injurious, and the patient should be particularly warned to avoid it.

Medicinal treatment should be resorted to only when the general management is not followed by satisfactory improvement or when complications arise. Excepting quinine, and preferably the salicylate, no drug antipyretics are permissible.

Cod-liver should be given to patients who bear it well, even if we should have to limit or decrease the use of other fats.

Creosote should be considered only as it may influence the bronchial catarrh

or certain digestive derangements, it having no direct influence upon the disease.

Diarrhœa not controllable by proper diet, yields the best to dermatol (subgallate of bismuth), 8 to 10 grains every three or four hours, or to similar doses of salicylate of bismuth every six or eight hours; moist compresses to the abdomen over night are also beneficial.

Cough with expectoration should not be interfered with, when due to congestion it yields to rest, when dry and harassing, apo-morpha, 1-16 grain, with or without codeine, $\frac{1}{8}$ grain, every two to four hours, give the best results. Moist, soothing inhalations should be tried before resorting to opiates. Many times pharyngeal catarrh is present and its treatment is then essential for relief of the cough. Night-sweats yield less rapidly but more lastingly to cold sponge baths at bed-time, and the use of the ice-bag over the heart with which the patient goes to sleep. Strychnia, 1-20 grain hypodermically, should be given on retiring, when the sweating is due to weak heart-action, followed by sub-normal temperature. A dose of brandy or rum, in milk, is also of benefit. Atropine should not be used if it is possible to avoid it.

Pleurisy, either acute or the circumscribed, dry form, requires strapping, for the relief of pain, rest in bed, counter-irritation, and, if effusion is present, the proper medical or surgical treatment for it.

Bloody expectoration and hæmorrhage is, as a rule, the result of physical over-exertion and otherwise improper conduct of the patient. Rest in bed, control of cough by morphia, hamamelis and the ice-bag over the heart have given me the best results. We rarely see hæmorrhage in my institution; in all cases treated there it has occurred in

less than 2 per cent. In anæmia I have been disappointed in the preparations of iron, and found, as a rule, that they are not well tolerated and tend to constipation. In some cases the blood conditions improve under otherwise correct management and liberal diet, together with proper out-of-door life.

In obstinate cases, as already stated, all the many preparations of iron have more or less failed me until recently, when my attention was directed to peptomangan, and from carefully conducted observations over the past six months, I find this preparation the most satisfactory of all that I have ever used. It has been uniformly well borne by the stomach, indeed, in most cases, the appetite and digestion became better at an early period of its use, while with only two or three exceptions, the red corpuscles increased in number, their form improved and the percentage of hæmoglobin was materially increased. The few failures which I observed occurred in cases of advanced intestinal tuberculosis, in which it was perhaps unreasonable to expect benefit.

I fear that some of my hearers will be disappointed with the simplicity of the treatment proposed, and from which all medication is excluded, unless for present complications. To such I would say that if they will conscientiously apply it upon the principle of being great in little things, if they will keep their patients steadfast and prevent relapses by securing their confidence and appreciation of their absolute necessity for their welfare, they will eventually appreciate what may now appear an uninteresting paper.

The limit of my time obliged me to cut out many details, and I purposely omitted reference to any specific or special treatment, it being hazardous to attempt such in private practice, but

shall be pleased to give such additional information as may be desired in the discussion of this paper.

DISCUSSION.

The author was requested to state whether he had found any place for cod-liver oil in the management of his cases, and whether creasote did not have an influence over the amount of expectoration. He was asked to enlarge upon these points.

Dr. Von Ruck advised the use of cod-liver oil at all times when the patient is able to bear it. He had already spoken of creasote. He was asked his experience in the use of arsenic and in the use of strychnine to harden the lung substance. He said that he had made extensive use of arsenic some years ago, but had not found that it had any particular effect in the treatment of pulmonary tuberculosis. He called attention to what he had referred to in his paper, the desirability of establishing sanitariums in places which are but little known. He emphasized his belief that the correct management of the patient in all the minute details of his life far outweighs all climatic treatment as generally carried on. He believed in the use of hypophosphites when it is indicated by the condition of the nervous system. As to baths, he said that a bath once a day, followed by massage, is very beneficial to the patient. Any drugs might be used if the indications were right. He held that no drugs should be used under any circumstances whatever, if they can be done without. Night-sweats are not treated with drugs at all, for if the patient can be gotten in the condition that at retiring in the evening he has no fever, there is no occasion for prescribing for night-sweats. The best remedy for night-sweats is the proper management of the case. There

is nothing more important than a good stomach, a good heart and good common-sense on the part of the patient. They are the requisites for recovery.

Dr. Moore congratulated the author upon the suggestiveness of his paper. He spoke of the grand climate of Western North Carolina, and hoped that soon there would be sanitariums established all over that country. He said that the author of the paper was correct in saying that patients should not be sent to a climate without judicious treatment on the part of some attending physician. The patient must have the proper attention as well as the bracing climate. Then he spoke of practice in the low country, where the climatic conditions are not so good. He said that when he had a patient who was capable of removal, he invariably sent him to that part of the country, and generally found

that if he was properly treated he received good from it. He laid great stress on paying minute and particular attention to the diet and the digestive organs of the patient. His great trouble had been the loss of appetite on the part of the patient. He was a great believer in the use of the hypophosphites to assist digestion. He called attention to the instability of the hypophosphites and the trouble from fermentation when the syrups were used. He used a dry preparation, which, to be made ready for use, required only the addition of water, and he said that it agreed exceedingly well with the patients. He spoke of creasote as an irritant that should be guardedly used. It is sometimes beneficial, but where the irritation is decidedly marked, better results will be more apt to be gotten by the absence than by the presence of creasote.

ANNUAL ESSAY—THE FAMILY PHYSICIAN IN RELATION TO CERTAIN FEATURES OF THE HEREDITARY FACTOR OF DISEASES.

BY J. HOWELL WAY, M.D., Waynesville, N. C.

(Read before the North Carolina Medical Society, May 15, 1894.)

"If one could set before one's self the greatest and most important problem in all pathology, it would be that which concerns the inheritance of diseases; and, as Sir William Gull has rightly stated, the inheritance not of diseases alone, but of that which from generation to generation shall obliterate the disease which one ancestor may have acquired."—Sir James Paget.

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While there is among medical men an universal acceptance of the doctrine of the hereditary transmission of certain mental and physical characteristics,

which may be physiological or pathological in their nature, it may well be questioned as to whether or not we, as family physicians, give this important subject the thoughtful consideration it well deserves. To one who has even casually studied the subject, there cannot be the least doubt that a very large percentage of the diseases, and which prey upon all civilized peoples the earth over, are largely the results of the inheritance of predispositions to diseases, or degenerate constitutions called into existence and fostered by

the deteriorating influences of civilization:

Again, it is to be remembered that the tendency of modern civilization is toward the cultivation, the extension and accentuation of the hereditary diseases, while its customs hinder the course of nature and seek to render abortive the operation of those great biological laws, which, when in force, lead to the extermination of the abnormal and diseased in every grade of natural life. Where animal life is in most perfect accord with its environment, pathological variations must at times occur, but their survival is of short duration, the law of natural selection remorselessly weeding them out, thus maintaining the higher standards of health which normally exist among primitive peoples. In most striking contrast is this to the results of the usages of civilized life. Here the puny, the diseased, the deformed creatures, that under primitive conditions would be ruthlessly stricken out from the race, are tenderly nurtured in an artificial environment created to render possible the prolongation of vitality, and if (as unfortunately they frequently are) endowed with procreative function, they are permitted to inflict their wretched offspring upon the common stock. Fortunately for the race, our success is and can never be but partial in the war we wage against the inexorable law condemning to extinction the unfit, for at best we only postpone the execution of its sentence, and when, as a result of our well-meant endeavors, one, two, or possibly more, generations of suffering mortals have fretted and wept out their hour upon life's stage, we are forced sadly aside and nature completes her work. Without questioning the utility or righteousness of such humane endeavors, being civilized beings ourselves and lovers of

humanity, and as such constantly in the very van of this work, we can but admire and cherish the noble and unselfish Christian spirit that prompts the actions of civilized man in carefully husbanding the vitality of the weak, while regretting that nature vouchsafes so poor returns for his labors.

But the moral features of this view of the subject, while presenting some most attractive themes for speculative study, concerns us not this evening, and we must pass to the consideration of the practical fact that disease is being handed down from father to son, from mother to daughter, from parent to child, and to ask ourselves, the chosen, trusted guardians of the physical well-being of our race, are we coming up to the full measure of our weighty responsibilities? Are we, in our mission of healing the sick, mindful of how inexorable, how unescapable is the law of hereditary transmission of disease or of liability thereto, and do we realize that a proper devotion to the true principles of our science, as well as a conscientious desire to benefit to the fullest possible extent the condition of those who entrust their persons to our care, should impel us to be as mindful of dispensing at the proper time and place this knowledge to our patients as freely as our potions or pills?

Despite the much said and written of recent years for the laity upon the subject of the hereditary transmission they have as yet been quite slow to grasp the eternal verities of the subject. To say the least, in the main they quietly ignore the whole matter, giving far less consideration to what may be the physical, the moral or the mental inheritance of their posterity than does the careful propagator to the inherited "points" of his Jersey calves or Collie pups. Whether this wholesale disregard of nature's laws

be due to ignorance or indifference on the part of our lay friends and patrons it matters little. So long as this state of affairs exists the family physician has a duty to perform—a duty to his profession, to himself, to his race, to his God! In the majority of the schools of our land where instruction in the elements of physiology is given, the hereditary transmission of disease and of disease tendencies should be clearly taught as being alike applicable to all of nature's creations, from the smallest plant to the strongest oak, from the lowliest amœba to man himself. And the almost certain transmissibility from parent to child of such diseased conditions as insanity, drunkenness, epilepsy or scrofula, should be taught our young men and women as well as a solemn sense of the responsibility assumed by those who, possessing in their own persons such strains of unfitness, dare continue their kind, thus adding to the world's stock of human misery that which an educated discretion and a rational self-denial could have prevented being called into existence. These truths once pressed home to the minds and consciences of the masses, would result in a far less number of children being born into the world whose lot is necessarily foredoomed to be one of woe and of ultimate extinction. It may be argued that in the matter of marriage passion and desire reign supreme over reason in the great preponderance of cases and that efforts to control the mating instincts of man are most often futile. Were this true the truth of these things should still be proclaimed. But it is not true, as is evidenced by the fact that there is a constantly increasing number of intelligent men and women who, knowing themselves afflicted with grave hereditary disease tendencies, have and are refraining from marriage and from adding

to the species. Again, it is not true, for do we not daily witness the solemnization of marriages where position or wealth, and not blind sentiment alone, are the controlling factors? Verily, cupid is not so blind to the light of reason as he has by the common consent of long usage been portrayed! And when rational people appreciate more fully the principles of heredity, then will the glorious light of reason illuminate recesses in human affairs where now only penetrates the darkness of quick-born passion and blind sentiment.

But leaving aside such extreme developments of disease tendency as should very properly preclude the idea of marriage, there is the far larger class of people who possess such tendencies in so modified a form as to make it probable that by exercising a judicious discrimination in their marital selection a healthy family would result. In this type of cases the intelligent family physician may render invaluable service by pointing out the special morbidic inclinations of each individual and showing how, by a proper union, these abnormal traits may not appear in offspring, as well as how, by an improper union, they may appear intensified to such degree as to bring only misery and unhappiness to its luckless victims. For such information, when procured at all, I confess to our reproach as the regular medical profession, the men and women of the land are too much dependent upon certain vicious kinds of quack literature instead of receiving instruction in these delicate but highly important matters from the chosen, trusted family physician, who should be, of all others, most fitted to give it.

It has been suggested by those high in authority that the strong arm of the law be invoked to sustain individuals

suffering from the more pronounced types of hereditary disease from the further contamination of the race by the continuation of their kind. At present, so far as our laws are concerned, excepting only idiots or raving maniacs, who are legally incompetent to make contracts, there is none so deformed, crippled or diseased who may not wed and become the parent of miserable offspring. While this unfortunate condition of affairs is far from being what could be desired, it would perhaps be well before appealing to "the powers that be" to control the mating of the race, to exhaust our resources for the educating and upbuilding of a public sentiment which would, in my opinion, regulate such affairs far more effectually than even the mailed hand of the law.

In this work the family physicians, possessed, as they are, of the family disease history, their physical weaknesses and idiosyncrasies, the special peculiarities of the mental, moral and temperamental bent of each, should naturally lead the way by pointing out how terribly relentless are nature's laws, by showing how tainted constitutions may originate *de novo*, how the individual with slight or no hereditary disease tendency can by vicious habits of life build up the gouty, the phthisical, the epileptic or the insane diathesis, and hand them down to his posterity. On the other hand, teaching how individuals possessed in some degree of disease tendencies may, by a careful observance of nature's laws and proper marital selections, render abortive the disease seed, and not only enjoy far more health in their own persons, but hand down an unencumbered physical estate to help bless instead of curse the habitations of earth.

It was Descartes who expressed the

opinion "that if it be possible to perfect the human race, it is in medicine that we must seek the means." And while perfection physically will, like perfection morally, probably never exist save in the realms of a happy and benignant idealism, yet the merest tyro in medical affairs will observe that our growth in that direction is infinitely more rapid than ever before in the history of the world. In the past I do not believe the family physicians have fully appreciated the vast extent of possible opportunities that lay in the field of their labors, hence, accepting an inferior position, they failed to beneficently influence the characters and lives of the race as their superior knowledge should have entitled them to. We have, both in the study of our science, as in the practice of our art, devoted too much attention to individual organisms and given too little consideration to the relations of that individual organism to other organisms and to the race in general. From the purely scientific standpoint, comparatively speaking, too much time has been devoted to the investigation of the physiological and pathological phenomena of animal life; from the standpoint of art, we have been content to relieve present suffering and prolong human life, while scant attention has been given to the solution of the exact influence upon the physical and moral status of the race of such factors as climate, education, occupation, social habits, social peculiarities and the vast domain of heredity.

The science of medicine, in its restricted sense, is but one part of the greater science of human life which has in view the consideration of all things that pertain to the promotion of the well-being of humanity. The tendency of modern medicine in giving special prominence to preventive medicine and

to the newly-discovered truths of biology, the magnificent revelations of the microscope and the brilliancy of the antiseptic surgery, are all to be accepted as pertinent indications of the direction in which the best medical thought of this age (and it is the best of all the ages!), is traveling. In perfect sympathy with this line of thought and action stand the possibilities of the practical application of the principles of heredity at the hands of the family physicians of the land in such way as to confer lasting benefits upon the race and as well to widen and extend the beneficent influence of our loved profession in the affairs of men.

To be enabled to carry out in practice these admonitions and to give our patients and their families the fullest benefits of our scientific knowledge in relation to the influence of heredity, the relations of the profession and its patrons ought to be more closely cemented than at present, and will require, to some extent, a re-arrangement of the relations existing between the family physician and his families. Such changed relations are, I am satisfied, quietly coming about in a natural way. Though it may seem at times to some that the modern brilliancy of specialists has entirely dimmed the more modest glory of the family physician, yet in the end this is not the result. Quite the contrary, I believe, for most of the hard-fought hand-to-hand conflicts with disease are those of the latter. In the days of anxious care attending the progress of the more acute maladies, it is he who stands by the patient's bedside holding out to him the olive-branch of hope, encouraging his care-worn friends and gracing the difficult and delicate details of the situation as only its master could. While the enormous and rapidly

growing growth of modern specialism (and a very necessary portion of our medical system it is, too!) has been encroaching in one direction upon the preserves of the general practitioner, his domain has *pari passu* widened in others, and the *fui-de-secle* family physician has exacting duties, weighty responsibilities and glorious opportunities far beyond that of any generation of his predecessors. The position held today in all the affairs of the race by the more intelligent and competent of general practitioners is one of constantly increasing influence, and the signs of the times are full of promise that, as civilization advances, this influence will alike do so. As society grows older and more settled, it learns to distinguish the things that confer the greatest and most substantial benefits to mankind. Thus that which contributes most to the general welfare will eventually receive the greatest meed of public recognition, and in that grand and glorious civilization that we are now on the borderland of, when the family physicians of the land rise fully to the measure of the obligations resting upon them as the protectors from physical evil of the race and grapple, with the determination to intelligently conquer, with all the remote and hereditary causes of possible future physical imperfection in man, as well as with his present disease, then shall they challenge the admiration and command the veneration of the world as the God's highest types of humanity.

It is reported that the Imperial Ottoman Empire, has recently sent three young Turkish women to France to study medicine—one to Montpellier, another to Nancy, the third to Lille. This is a step undreamed of 50 years ago.—*Cincin. Med. Jour.*

NASAL OBSTRUCTIONS A CAUSE OF DISEASE IN THE EYE AS WELL AS THE EAR; WITH REPORT OF A CASE.

BY EDWARD F. PARKER, M.D., Demonstrator of Anatomy and Clinical Assistant
to the Lecturer on Diseases of the Eye and Ear, Medical College of the
State of South Carolina, Charleston, S. C.

(Read before the South Carolina Medical Association, April 25th, 1894.)

The object of this brief article is to direct the attention of the Association more particularly to the physiological interdependence of the eye, ear, nose and throat by reason of their anatomical connections, to emphasize its importance and to corroborate by a clinical record the relation which nasal disease as a causative factor may bear to morbid conditions of the eye as well as the ear. The intimate relation between chronic otitis media or aural catarrh and previous or coexisting pathological conditions of the nose and naso-pharynx has been amply demonstrated by clinical experience in the past, and is to-day thoroughly recognized by the profession generally. Beyond a doubt the most common cause of deafness is due to the extension of an inflammation, local or constitutional in its origin, from the mucous membrane of the naso-pharyngeal space by continuity through the Eustachian tube to the middle ear. This process gradually leads to a thickening and hypertrophy of the connective tissue elements and cells resulting in a narrowing of the lumen of the tube, which in its turn restricts the middle ear space or drum cavity, destroys the relative air pressure inside and outside of the drum membrane, produces ankylosis of the bony ossicles and more or less deafness. Now, an exactly similar relation often exists between obstructions of the lachrymal drainage system and inflammations or hypertrophies of the nasal mucous mem-

brane, but the relationship is not so commonly recognized.

The nasal duct, which drains the tears from the lachrymal sac into the nose, empties into the anterior part of the inferior meatus. The mucous membranes are here continuous and the inferior meatus being the respiratory passage, renders them peculiarly liable to all kinds of irritation, which, spreading up the canal by continuity, may lead to various grades of lachrymal obstruction from a simple collection of mucous in the canal to an organic stricture with more or less overflow of tears on the cheek and consequent discomfort. The causes, which, beginning in the nose, may lead to lachrymal obstruction, vary largely in gravity and frequency; simple or chronic rhinitis, hypertrophic or cartilaginous obstructions, foreign bodies, new growths, such as polypi and other tumors, all may lead to defective tear-drainage by inflaming the nasal duct and diminishing its normal calibre.

As in other morbid conditions, cause and effect do not always bear a constant relation, and so the presence of any of these diseases may still not excite consecutive trouble in adjacent and closely dependent organs. Obstructions in the nose or naso-pharynx may exist without disease of either ear or eye resulting, and again their removal may not affect coexisting disease of these organs, but this does not negative the proposition, but only proves that the law of cause

and effect has exceptions, like all other laws.

A case of consecutive deafness and lachrymal obstruction associated with nasal polypi indisputably corroborates this relative interdependence alluded to.

On March 2, 1894, Mrs. A. consulted me, complaining of a constant overflow of tears from the right eye. Examination showed a mucocele of the lachrymal sac with considerable swelling of the lower lid. She was also deaf in the right ear. The drum membrane was somewhat congested, concave and shrunken, and the tuning-fork test showed the case to be one of disease of the middle ear. Here, then, was a catarrhal disease affecting ear and eye alike, and both on the right side. Incidentally she mentioned that for two years she had suffered from more or less stoppage of the right side of the nose, and that two months ago a profuse hemorrhage occurred. This bleeding was repeated on several occasions, and she thought had weakened her considerably, though little importance was attached to them as they would stop spontaneously. Suspecting a new growth, the nose was examined and two large polypi found. One was seen in the anterior part of the fossa, and was no doubt the original cause of the obstruction in the nasal duct by partially occluding its opening or by inducing inflammatory changes in the mucous membrane—the other was seen in the port-rhinoscopic mirror in close proximity to the Eustachian tube. Deafness of the right ear, obstruction of the right nasal duct and stoppage of the right side of the nose present a group of pathological conditions which cannot be explained by mere coincidence.

The polypi were removed with the Jarvis cold wire snare, and the normal dimensions of the passage thus restored.

The canaliculus was slit up with Weber's probe-pointed knife and a lachrymal sound passed through and the duct syringed with a detergent antiseptic solution. The ear was inflated with the Politzer bag and chloroform vapor, and subsequent improvement was gratifying.

This case does not, nor would any series of cases, prove that lachrymal obstructions invariably originate from previous nasal disease, but it establishes the fact that inflammatory processes beginning in the nose can as readily affect the drainage system of the eye through the nasal duct as they can the auditory apparatus through the Eustachian tube. Hypertrophic conditions of the inferior turbinated bone, the most frequent form of nasal obstruction, are not infrequently associated with disease of the lachrymal system, and the cure of the latter is often facilitated by appropriate treatment of the former.

Another case of lachrymal disease, occurring in the person of a colored woman from Summerville, South Carolina, while having no apparent connection with any abnormal intra-nasal condition, is interesting on account of the presence of a fistulous opening situated on the upper lip just at the junction of the nostril. For a year or more the right eye had been continually running water and frequently becoming inflamed. Suddenly, without much pain, a swelling burst in the position described, leaving an opening with a chronic discharge. She had consulted several dentists, supposing the fistula to be due to a diseased tooth, and was finally referred to me by Dr. J. A. Miles, who suspected the true nature of the difficulty. At times, when the fistula was open, she would be bothered by the constant discharge, yet the eye would be comfortable, while again a scab would form over the orifice, the discharge cease, and the tears filling

the eye would blur the vision. The cause of the fistula was an abscess of the lachrymal sac, from a stricture of the nasal duct, which had discharged itself on the upper lip. The fistula healed as soon as the canal was dilated to its full size by sounds, so as to allow a rapid

drainage of the tears, and has not returned since.

The situation of a fistulous opening in such cases is usually just over the sac or slightly below, and its position in this case was certainly a very rare one.

COMPLICATIONS IN OVARIOTOMY.

BY CORNELIUS KOLLOCK, M.D., Cheraw, S. C.

Complications in ovariectomy, as well as in all abdominal or pelvic surgery, are numerous. There is, perhaps, no operation from which the operator learns so much by experience as from ovariectomy. While we are certain of the presence of a cyst on one ovary or on both, we are never prepared to say what else we may find. The rule of Sir Spencer Wells is the safest guide in all abdominal or pelvic operations: "Never be too sure of your diagnosis till you have seen in the cavity." The general surgeon knows just what he is after, and usually goes quietly along; but even his work is sometimes complicated with troubles that he dreams not of. Still more is this the case with the abdominal surgeon. If, knowing just what he proposed to do and the manner of doing it, he proceeds as if this were all he would have to contend with, he not unfrequently reproached himself, when too late, that he did not anticipate something in the way of complication.

How often it happens to him, when he has made sure of his diagnosis of a simple cyst of an ovary, that he finds, in addition, an abscess of the broad ligament, an intra-ligamentous ovarian cystoma, a pyosalpinx; or perhaps his calculations may be upset by the presence of a carcinoma of the uterus.

Case 1.—Two years ago last February, I was consulted by a lady whose physician pronounced her case an ovarian cyst. An examination revealed a cyst on each ovary. They were not large—not sufficient to produce the abdominal distention of which she complained much. I suspected some other trouble. Questioning her closely as to her being pregnant, I found her unwilling to entertain such an idea; she said she had seven children, and always knew when pregnancy took place; that she was 36 years of age, and that menstruation had been perfectly normal up to that time. I did not introduce a sound into the uterine cavity.

On the 4th of February, 1892, I made an incision from below the umbilicus for three and one-half inches. I found on each ovary a dermoid cyst. One weighed six pounds, the other a little more than five and a half. As soon as the cavity was opened I was positive that the woman was pregnant, and so expressed myself. In 116 days from the date of the operation she gave birth to fine twins. They are now living and doing well.

Case 2.—A mulatto woman, aged 39. General health apparently good; menstruation had always been fairly regular; she had been married twenty years, but

was not aware that conception had ever taken place. She was remarkably energetic and did much work at home. There was much abdominal distention; she measured at the umbilicus 49 inches.

Upon examination I discovered a large fibroid attached by a small pedicle, just within the cervix, to the lower labium. A second and smaller fibroid was attached just at the junction of the cervix with the body of the uterus. A third fibroid was found high up on the fundus near the left horn. The last two were well pediculated; both pedicles were much larger than the one in the os uteri. The pedicles were all doubly ligated and the fibroids removed. I then saw that the woman was pregnant, and three months and a half after the operation she gave birth to a fine boy. Mother and child have both done well, and there is great joy in the family.

Case 3.—Colored; aged 34; has had four children; general health has always been good.

Strange to say, considering the condition of this woman, she was never troubled with hemorrhages, nor even with excessively profuse menstrual discharges. The abdomen was much distended; measured at the umbilicus 51 inches.

On the 16th of August, 1893, a thorough examination was made, and I came to the conclusion that there was a heterogeneous mixture of growths in the pelvic or abdominal cavity. An incision of four inches was made below the umbilicus. The first thing seen was a fibroid about the size of a fetal head. It was attached by a small pedicle to the upper labium, just within the cavity of the cervix. On each ovary there was a cystoma as large as a medium-sized orange. But this was not all. There were six other fibroids, varying in size from a hen's egg to a pigeon's egg. Four of these fibroids were attached

along the outer walls of the uterus as high as the fundus—two on the posterior wall and two on the anterior surface. The two remaining fibroids were attached to the broad ligament. The larger the fibroids, the smaller were the pedicles. None of them were interstitial—all were distinctly pediculated. The cysts on the ovaries were ligated and removed, and the fibroids were all disposed of in the same manner.

This operation was a complete success. The incision healed by first intention, and the sutures were all removed on the tenth day. The woman was up and about her house in less than three weeks after the operation. She began to pick cotton on the 1st of October, and has worked on the farm up to the present time. She is now perfectly well, and there are no indications of a reproduction of any kind of growth in the pelvic region. But as fibroids are so common in the female negro, we cannot tell what the future may develop.

Such cases are instructive as well as interesting, for they teach the operator the importance, in all pelvic and abdominal operations, of being prepared for every emergency.

AN OPERATION FOR UTERINE PROLAPSE.—Terrillon, Paris (*Centralb. für Gynäk.*), advises a method of operation he has applied in 20 cases of uterine prolapse with good results. The vagina is almost completely closed by means of denuding 4 to 8 longitudinal strips of vaginal mucous membrane, about 1 inch in breadth, separated from one another by a half inch of normal mucous membrane, and extending from the ostium vulvæ to within three-fourths of an inch of the uterus. The strips are sutured together by means of interrupted silk sutures. If, after uniting the prepared strips, the perineum is not sufficiently closed, he does a small perineorrhaphy after the method of Emmet, using silver wire sutures.—*Univ. Med. Magazine.*

OUR INDIGENOUS MATERIA MEDICA.

BY THOMAS HILL, M.D., Goldsboro, N. C.

(Read before the North Carolina Medical Society, May 15th, 1894.)

Having been requested by the Chairman of the Section of Therapeutics and Materia Medica to write a paper for the Society on some of the indigenous remedies used in practice by myself, I will endeavor to comply with the request. But when I seat myself to begin I find myself confronted with so many of these remedies that it is almost impossible to make a selection. However, as the Editor of the NORTH CAROLINA MEDICAL JOURNAL, in the February number, suggests to those who write papers that there may be more brought out in the discussion of a paper than in the article itself, I will try and be as concise and practical as possible. And in the beginning let me say to the younger members of the Society that if they will only give a little more attention to the study of botany, they can derive the greatest pleasure and profit, while they are riding through the country, in studying the different plants and flowers they may see by the roadside. And they will be surprised at the number of them they will find to be of practical benefit to themselves and patients.

I will begin with the *Ambrosia artemisiifolia* — Rag Weed — Carrot Weed. Grows in cultivated lands and pastures; hæmostatic; useful in all passive hemorrhages, and particularly in purpura hemorrhagica; also applied locally to bleeding surfaces; used in form of infusion, $\frac{1}{2}$ oz. to pint of boiling water; when cold, wine-glassful every half-hour to hour, till hemorrhage ceases, then less frequently; in hæmatemesis, the dried leaves chewed, and swallowing the juice will arrest the bleeding almost instantly; in

epistaxis, take the infusion and apply locally in form of plug to nostrils, or inject a strong infusion.

Phytolacca bacca — Poke-berries — a most valuable remedy in acute articular rheumatism. A saturated tincture of the berries in whiskey, taken in teaspoonful doses, every three or four hours, will cut short the disease in less time than any remedy I have ever used. I have tried the tincture of the root, and also the fluid extract of the Pharmacopœia, and though in some instances I have had good results, yet in others I have failed and had the happiest effects with the berries and whiskey. I have never seen any toxic effects. A tincture of the root is almost a specific in conjunctivitis and also in mastitis.

On one occasion I was called five miles into the country to see a case of menorrhagia—woman, reported to be flowing to death. I took from my office p. sulph. ferri, ergot, etc., etc., and a glass speculum—the only one I had. When I got to the place and took out my medicine chest, what was my dismay to find my speculum broken. Now, what was I to do? Just then I remembered having seen a short time before an article by Dr. E. A. Anderson, of Wilmington, recommending *Urtica urens*, Stinging Nettle, as the remedy for this trouble. As I came into the field, before getting to the house, I had seen some of the nettle growing. I immediately got a hoe, dug some of the roots, washed them and gave the woman to eat, in the meantime preparing an infusion; before I got this ready my patient was safe, and I used nothing else. This remedy

is highly spoken of by Dr. Porcher in the *Resources of Southern Field and Forest*.

Vaccinia crassifoliam—Running Huckleberry. How often in the fall of the year do we have patients, children particularly, living in our low swampy western country, after having chill and fever all the summer and fall, with enlarged spleen, swelled bellies and limbs, tallow-faced and anæmic. Quinine has no effect, iron and arsenic does no good, they go on from bad to worse, and you think they must die. Now, order for them the running huckleberry made into a strong tea, let them drink this *ad libitum*; the secretions, before locked, seem to open by magic; appetite improves and spirits revive. Now give a drop of tr. ferri muriat., in plenty of water, or one of Fowler's solution of arsenic, three times a day, and see how soon your little patient will look rosy and healthy. This remedy is also indicated in other forms of dropsy, also in renal suppression, and will soon restore the action of the kidneys.

On the 18th September, 1859, I was probably the happiest man in the State. On that morning my first boy was born—a fine, healthy, 10-pound fellow. Everything went on well till the third day, when, from injudicious feeding, his bowels were upset. I gave all the simple astringents I knew. Nothing did any good, and finally I sent for our old lamented friend, Dr. Summerell. I met him a short distance from the house, telling him I found nothing would do any good. Every particle of the fluid in the child's body seemed to have passed out by the rectum, his skin, shriveled and shrunken, seemed to cling to his bones, and his face had the appearance of an old man. The Doctor, being a practical man, asked me to go to a persimmon tree by the roadside, loaded

with half ripe fruit, and get a handful of them. I did so. So soon as he got to the hoase he called for a cup and spoon and sugar, bruised up the persimmons, got a spoonful of the juice, added a little sugar and gave to the child. I had heard of miraculous cures, but then I saw one. The bowels were checked immediately, and in a few days the child was all right. Since then every fall I have prepared a bottle of the syrup of green persimmons, and am satisfied that I have saved more than one life by having it.

About three years ago Dr. Napier, of South Carolina, reported some cases of epilepsy treated with saturated tincture of *Solanum carolinensis*—Horse Nettle. I had a quantity of the tincture prepared from the balls or fruit, and treated three cases—one, a man aged 21—spasm every month—commenced treatment March, 1890; 10 drops three times a day. No spasm up to October 1st; discontinued remedy; spasms now at long intervals.

A lad 12 years—spasms eight years, once or twice a week; 20 drops of tr. three times a day; no spasms since.

Other cases were treated showing the great value of the remedy as an anti-spasmodic.

One more remedy and I will close. If you are ever stung by a bee, wasp or yellow-jacket, saturate your handkerchief with fresh urine and apply to the spot, and see how quickly you will be relieved.

And now, Mr. President, I will bring my paper to a close, with the advice of an old physician, who practiced medicine forty years, to the younger members of the profession, to pay more attention to the study of botany, and to keep their eyes and ears open, and they will frequently get some valuable hints from humble and unexpected sources.

DISCUSSION.

Dr. O'Hagan stated that he was surprised that Dr. Hill had not mentioned or communicated that remedy for apoplexy in the State Medical Journal. He said that he had several cases of apoplexy on hand, had tried various remedies, and the next summer he proposed to try Dr. Hill's remedy. If it does possess any power over apoplexy it will certainly be worth a great deal to the sufferers from that malady.

He mentioned the use of the running huckleberry, and if it does possess the virtues attributed to it, it is certainly invaluable. He stated that he had several cases on which he was going to try the remedies, and hoped he would have as good results as Dr. Hill had experienced.

Dr. Sykes related two cases on which he had tried Dr. Hill's remedy. He had a case of hæmorrhage and everything that he tried met with no success, until he remembered Dr. Hill's suggestion. He picked out some dry weeds from a stack of hay and made a tea, and in three or four hours after the man began to drink it he had no more trouble. The last year he had had a case and had given it up for death. But he gathered some weeds and made a tea. In a few hours after beginning to drink it the man was relieved and had no more trouble. He is now well and strong.

Dr. Poole mentioned a case of apoplexy. A boy about 12 years old had frequent attacks. He used an extract prepared by Messrs. Parke, Davis & Co. He began by giving 8-drop doses three times a day and gradually increased to 15 drops. The attacks became less frequent and less severe. The treatment was kept up, and after a while the attacks entirely disappeared. In about

a month the company got out of the remedy and it could not be gotten for four months. The attacks returned, but he had only three or four in that time. Then the remedy was obtained and the boy put regularly upon it. In a year he has had not one attack. He believed the boy cured, but was afraid to discontinue its use.

Dr. Kent had had some experience in the use of rag-weed in arrest of hæmorrhage. His experience had been favorable—at any rate it stopped the hæmorrhage. The paper just read called to his mind a subject which he had investigated to some extent a few years ago. He said that, believing that a great many valuable remedies have been discovered by the laity, and that among the laity of his section there was a certain plant believed to be a sure cure for rattle-snake bites, he concluded that he would endeavor to find out what the plant was, and discover if there was any real virtue in it. He obtained a number of samples of the plant from respectable persons, with their certificates properly signed. The samples were not all from the same vicinity, but some were from the surrounding counties. He could not give the botanical names of the plant, but he knew it by the common names used in his region. He investigated the matter and found that there was no real virtue in the plant.

A RUMOR.—It is said that the peerless, prancing, proud, pulsating, powerful, princely, prudence-lacking, pretty, petite, plump, priggish, personification of alliteration who presides as editor of the *Medical Mirror* intends to capture the American Medical Association, horse, foot and dragoons, and elect himself President thereof. The other candidates are warned to get out of the way of the St. Louis cyclone.—*Tri-State Med. Jour.*

CHLORAL HYDRATE—SOME OF ITS USES.

BY BEN. H. BRODNAX, M.D., of Brodnax, La.

(Read before the Philadelphia County Medical Society by Oscar H. Allis, June 13, 1894.)

In conversation with physicians at various times, I have noticed they viewed chloral as merely a hypnotic, and had used it only for the purpose of relieving pain, thereby inducing sleep. I have been a little surprised at this want of knowledge of its other equally valuable properties. Early in my practice I tried to make a few medicines, combined or by themselves, do all that they would for me, and was led into experimentation with them. Chloral came in for its share, because it relieved pain, quieted the nervous system and did not paralyze the bowels.

As a *hypnotic*, 5 grains of chloral combined with laudanum or with $\frac{1}{4}$ or $\frac{1}{2}$ grain of morphine, acts splendidly, the combination intensifying the effects of each and depriving the opiate of its stimulating property. With children, by itself, in sweetened water, it has no equal; mixed with paregoric, it is also good.

I *prepare* it as follows: I just cover the amount in my case vial with glycerin—this dissolves it, and a drop is about a grain. In this form it mixes readily with oil or water, and is more quickly prepared and more easily divided into doses, large or small. With castor oil, the dose, 1 to 5 grains renders it less nauseating, and does not gripe, at the same time producing quiet and rest.

Applied to the skin in eruptive diseases—measles, urticaria—as follows: chloral, 10 grains (drops); carbolic acid, 10 grains (drops); water or oil, 1 to 2 ounces, almost instant relief is experi-

enced of the intense itchings. Or chloral, 10 drops; glycerin and water, each $\frac{1}{2}$ ounce, produces the same effect.

As a mouth-wash: Chloral, 10 grains; glycerin and water, each $\frac{1}{2}$ ounce (a teaspoonful), produces a pleasant cool sensation in salivation, or as a gargle. After holding it for a moment in the mouth, it should be rejected and an equal amount of the fresh solution may be swallowed. Carbolic acid (10 drops) added makes it more effective in ulceration of the mucous coverings. It seems to act on the nerves locally the same as chloroform by inhalation does on the body.

In toothache: Chloral, camphor, glycerin, carbolic acid, equal quantities, applied on a small piece of cotton after cleaning the cavity, will relieve the pain. (Cover with more cotton to fill the cavity.) I keep the mixture, ready-made, under the name of "Toothache Drops," in my medicine case. If the patient has lost sleep, I give a full dose of chloral by the mouth.

For ulcerated sore-throat, or ulceration from any cause, such as scalds: Chloral, 10 to 15 drops (grains); water, 1 to 2 ounces, as to age; sugar, to make it palatable to children, a teaspoonful, repeated at short intervals until sleep is induced, then on waking to keep them fully under its influence. My first experience was on my only daughter, four years old. The case was so severe I feared I would lose her, and to get rest for her, gave as above, after having tried everything else I knew of. The

almost immediate relief of all the bad symptoms led me to think the medicine acted *otherwise than merely as a rest-producer*. Since then for ten years I have used it with the utmost satisfaction to myself and patients.

Earache: Camphor, 10 grains; chloral, 10 grains; carbolic acid, 10 grains; castor oil, $\frac{1}{2}$ ounce. Drop into the ear warm. Fill the ear full, then a cloth wrung out in hot water as warm as can be borne. I have seen some almost crazy children go to sleep in two or three minutes and awake free of their troubles.

As an aid to chloroform in surgery or obstetrics, 10 to 15 grains, given twenty minutes before administration of the anæsthetic, seems to intensify the effect and less than one-half of it is needed to produce the desired effect. In my obstetric practice for the last fifteen years I have used it, and have observed but one case where any unpleasant effects were induced. This was in a woman with her tenth child. I gave the chloral to relax the system, 10 grains; in half an hour 5 grains more; in half an hour the chloroform. It affected her almost immediately, and the child advanced and came away in good style, but the woman seemed to be dead drunk and incapable of moving herself. She slept soundly for several hours and awoke all right. She was conscious and would answer questions, but could not use herself. This was the first time she had taken either of the drugs, and she may have been susceptible—easily affected. Chloral, given before the anæsthetic, seems to tide them over the excited stage of anæsthesia. The first few whiffs of the anæsthetic produce quiet without any excitement. I have used it in a few surgical cases with the

same effect. In children, a full dose of chloral, and when sleep comes on they are anæsthetized in that state, and the force often necessary, otherwise, is avoided.

In coryza, where the Schneiderian membrane is very irritable, chloral, 10 grains (or drops); castor oil, $\frac{1}{2}$ ounce, used with a soft mop, applied over the surface, after being dried, acts to check the excretion of mucus, and lulls the irritation and the head-pains.

The supposed influence of the drug on the heart has been urged by my friends against its use. I have not seen any unpleasant effects. In any case where there is a chance of any cardiac trouble, it is an easy matter to fortify the heart with a 1-50 gr. of nitroglycerin. In one delicate woman I did this as a precaution, but even in her case I believe it was not necessary. This summarizes my experience with chloral, and when I tell you I use from five to six pounds a year, you may know that it has a very considerable scope. I never prescribe it in any quantities, so as to create a "habit." In fact, I do not know of a single case of the kind.

WATER PRESSURE IN IMPASSABLE STRICTURE.—Dr. Charles J. Smith, in a late *Lancet*, contributes the history of two cases of distressing stricture effectually overcome by the use of a blunt, open-end, soft catheter and an ordinary large syringe bag, the end of the tube of the latter being furnished with the nozzle and stop-cock of an ordinary bladder-washing bag. This is a very ingenious, safe and painless method, and not as back-breaking to the surgeon as the patient work required to engage the fine end of a filiform in the hard-to-find narrow passage.—*Natl. Pop. Review*.

Selected Papers.

DR. WILLIAM THOMAS COGGIN, OF ATHENS, GEORGIA,

WHO CLAIMS THE HONOR OF DOING THE FIRST SYMPHYSEOTOMY IN THIS COUNTRY, IS DENOUNCED BY THE ETOWAH COUNTY (ALABAMA) MEDICAL SOCIETY AS AN IMPOSTOR AND A FRAUD.

Editor Alabama Medical and Surgical Age :

In the April number of your journal there is an extract from the *New Orleans Medical Journal*, from the pen of Dr. Robert P. Harris, of Philadelphia.

In the above article the very distinguished honor of performing the first symphyseotomy on the American Continent is bestowed upon one William Thomas Coggin, A.M., M.D., Ph.D., etc., now of Athens, Ga., but late of Keener, Etowah county, Alabama. Until the above article appeared in your journal, the medical profession of this county had never heard of the wonderful feat of Dr. Coggin, and, feeling that it is a duty we owe to our profession in general, and other claimants for the same honor in particular, we determined to make a thorough investigation as to the facts in Dr. Coggin's claims, as we are on the grounds where he claims to have done the work; hence we think this should be satisfactory to all-fairminded men. We recognize the fact that "honor should be given to whom honor is due."

To accomplish our purpose in a satisfactory way, the matter was brought before our county medical society at the regular meeting in May. A committee of three was appointed by the President to make a thorough investigation as to the facts in Dr. Coggin's claims, and report to the Society at the regular meeting on the first Tuesday in June.

From the report of this committee, after a thorough investigation of the

case, together with correspondence from Dr. Coggin with different persons on the subject, what is here stated is based. We will first notice what Dr. Coggin says as to the facts: He states that on March 12th, 1892, he delivered one Mrs. Cary Hughs, the wife of a miner, of a living child by pubic section, and that his patient resided at the time of the operation at Freedman, Northeast Alabama, and that one Dr. Chas. Slaughter assisted him in doing the operation. In a letter dated April 2, 1894, to Dr. C. J. Slaughter, of Aurora, Ala., Dr. Coggin says that "Mr. Cary Hughs lived on the Freedman place, near the rocky ford on Wills creek, before he went to the mines."

Diligent search has been made of the postoffice directory and other sources, and no such place as Freedman in Alabama can be found. A large number of the most prominent men in the vicinity in which Dr. Coggin lived and claimed to have done this operation have been interviewed, both as to Freedman and the operation, but not a single individual has been found who ever heard of Freedman or the operation. All the men in the immediate vicinity of the rocky ford have been interviewed with reference to Cary Hughs, but not one of them ever knew or heard of such a person in that locality. The books and managers of the mines in that locality have been consulted, and no trace of Cary Hughs ever having been in that

locality can be found. The merchants and postmaster in that section of country have never known or heard of such an individual. Dr. C. J. Slaughter is the only Dr. Slaughter who has ever been heard of in that entire section of Alabama, and he says he never assisted in or heard of any such operation by Dr. Coggin or any one else.

In Dr. Coggin's report to the county health officer, of the births and deaths in his practice, he makes no report of delivering Mrs. Cary Hughs, although he makes a report of other cases in the same month he claims to have done the operation. In all the search and investigation that has been made, not a shadow of evidence has been found supporting Dr. Coggin's claim.

Under date of May 18, 1894, the President of our Society invited Dr. Coggin to meet with it at the June session and to exhibit his patient and such other evidence as he might have to establish his claims. He was assured he should have a fair and square hearing, and if he produced the evidence he claimed to have, in a card to the President of this Society, dated May 17, 1894, our Society would take pleasure in confirming his claims and in doing him the honor he was claiming. He was urged to appear before us, but he failed to put in his appearance. Hence it is clear to any unbiased mind that there is not a shadow of evidence tending to corroborate Coggin's claim, and the whole matter hinges on his own assertion. If we are not laboring under a false impression, it is not the policy of the medical profession of this country to accept statements or assertions of this kind without some proof to verify such statements, although he may be ever so reputable. This being the case, we think it perfectly legitimate and equitable to investigate the record

of Dr. Coggin. We are fully aware that it is no small or insignificant matter to undertake to impeach a brother physician (if he is entitled to such honor), but we feel the gravity of the case justifies the means; therefore we will take a retrospective view of Dr. Coggin's career during his sojourn in Alabama.

During the early part of the year 1888 Dr. Coggin came to Gadsden, Ala., and made application to the Etowah County Examining Board for an examination to obtain a license preparatory to entering the practice of medicine, in compliance with the laws of the State.

Before an applicant is eligible for examination before a county medical examining board in Alabama, he must first exhibit a diploma from some reliable medical college; this Dr. Coggin was not able to do, but he set about to convince the board that he was a graduate in medicine, but he had been unfortunate by having his diploma burned, together with a drug store in Athens, Ga., a short time previous, and to convince the board of the correctness of his statement, he exhibited letters to that effect, one of which was from the dean of the faculty of the medical department of the University of the State of Georgia, located at Augusta, Ga. Dr. Coggin claimed to have graduated from that school in 1882, and from the literary department of the University at Athens he claims to have received the degree of A.M. He also exhibited letters verifying his statement as to the burning of his drug store.

This evidence had its desired effect on the part of Dr. Coggin and an examination was granted him. The board claim he was given a fair examination, but he failed to come up to the requirements of the law and a certificate was refused.

For a while Dr. Coggin was non-

plussed, but soon rallied and came with renewed force and vigor. He appealed to our Senior Censor, Dr. Jerome Cochran, and by the mighty force of that magic pen of his, which he has wielded so successfully on more occasions than this, he touched the tender chord of sympathy in the noble heart of Dr. Cochran, and, actuated by the advice and recommendation of Dr. Cochran, which was the only possible available way by which a re-examination could be granted him under twelve months before a county examining board. In his appeals to Dr. Cochran he brought to bear upon him that, in his first examination, he was sick and his eyes were inflamed to such an extent that he was not able to see to read or write, and that his means were exhausted, and he felt confident if he was given a fair showing he could pass a successful examination.

It is claimed, on good authority, that he, although but a short time in the community, soon found valuable friends who came to his rescue, and by their aid and some leniency on the part of the board, a certificate was granted him.

This heeled the Doctor, so far as the law was concerned, to practice medicine in Alabama, and so he proceeded at once, and was soon located at the famous and historic spot, where he says he soon succeeded in establishing a satisfactory practice; but whether or not when he located at this place he ever dreamed that away back in the lonely hills and mountains of Etowah county a favorable opportunity should offer itself to bring forth the latent skill and ingenuity that was lurking in the posterior portion of his cranium—be this as it may—but, according to his statement, that favorable opportunity came at last, and he was on the alert to avail himself of the opportunity that presents itself to but few men with similar environments, and thus

bound, at one gigantic leap, into world-wide fame!

Soon after Dr. Coggin located in our county, as he was in the midst of an agricultural people, he seems to have decided it would be the proper thing for him to attach himself to the Farmer's Alliance, which, at that time, was sweeping over this country at high tide, and by this soon ingratiate himself into the good graces of the yeomanry of his section. The Doctor, it seems, was not slow in rising to no small eminence in that organization, and was gaining, by his craft, the confidence of the community as a physician; and in the meantime he had become an active member of our county medical society.

So far as we were aware, everything was smooth-sailing with the Doctor, until in the early part of the year 1889, when, it appears, a brother Allianceman and doctor as well, who is rather of an investigative turn of mind, and not at all disposed to keep silent and submit to any man coming within his domain and relieving him of the burdens, and sharing the profits and luxuries of a country practice, without first satisfying himself that such individual was *legally* authorized to carry on such a business, was not slow to investigate, and his efforts were crowned with success. It was not long until the biography of Dr. Coggin was rather current news for the community; and, I may add, this biographical sketch was not *allogot'h.r* as flattering to Dr. Coggin as the one given in the April number of your journal. He denounced him in unmistakable terms as a fraud, a forger and an imposition on the people, and heavily assailed our examining board for granting him a certificate to practice medicine, claiming he had no diploma and that he had duped the board.

The examining board had acted in

good faith, and this charge put it on the defensive, and an investigation was at once instituted with reference to Dr. Coggin's claims of graduation. The dean of the faculty of the medical department of the University of Georgia was written to in regard to Dr. Coggin's graduation from that school, and also as to having written a letter to that effect, in reply to which he stated Dr. Coggin was not a graduate of that school, and if Dr. Coggin had exhibited any letter with his signature to that effect, it was forged. He went on to state that Dr. Coggin had matriculated in that school, but had left there under a cloud. The postmaster at Athens, Ga., was written to concerning the burning of the drug store, and in reply he stated he had been a citizen of Athens, Ga., for a number of years, and no such man as William Thomas Coggin had ever engaged in the drug business or the practice of medicine in that place, and that there had not been a drug store burned there for a number of years.

After his little scheme had been shown to be false about graduating at Augusta, he then claimed he had graduated from the Medical College of South Carolina, at Charleston. An investigation of this claim proved it to be as false as the previous one.

After these facts were shown up, charges were preferred against him, and he was notified to appear before our county medical society to answer to them, but he did not so much as appear to offer any defense, and he was expelled from, and put under the ban of, the Society.

After this Dr. Coggin quieted down for a while, and nothing more was heard from him by our Society until in 1891, when he made complaint to Dr. Jerome Cochran, our Senior Censor of the State, that he had been misrepresented by our

Society, as shown in the transactions of the State Medical Association. In making our report to the State Medical Association we had reported him as an under-graduate. Dr. Cochran called the attention of our Society to the matter, and Dr. Coggin was notified to appear before our Society at its next regular meeting, which was in August, and show cause why he should not be so reported. Dr. Coggin promptly appeared before our Society, and, to the utter surprise and astonishment of every one, he exhibited a diploma, coming this time from the "Western Reserve University," of Cleveland, Ohio, and was an adendum degree. Our Society is in possession of a letter from one H. H. Powell, Register of the Western Reserve University, of Cleveland, Ohio, and in that letter, which is dated July 8th, 1891, he says that a man by the name of William Thomas Coggin graduated a few years ago from what was then known as "Charity Hospital College," and all such are entitled to the adendum of the University. He registered from Keener, Ala. It should be borne in mind that Dr. Coggin now claims to have graduated from the Charity Hospital College, of Cleveland, Ohio, in 1882, and that Dr. H. H. Powell, Register of the Western Reserve University, of Cleveland, Ohio, stated he matriculated from Keener, Ala.

It can be clearly shown that William Thomas Coggin was never heard of in Etowah county until in 1888. How and when Dr. Coggin obtained these diplomas we are not able to state. It seems remarkably strange, however, that if Dr. Coggin was a graduate in 1882 from the Charity Hospital College, of Cleveland, Ohio, as he now claims—why, in 1888, when he made application to our county examining board, he did not exhibit his diploma from that school. It seems to

us this would have been much easier than to go to all the trouble he did in getting up the proof about graduating in Augusta, Georgia. Dr. Coggin alone, we presume, can explain this. It would be quite a gratification to our Society to have an explanation from the Doctor on this subject. The burden of proof is thrown upon him to show how and when he obtained these diplomas, as well as the rights to some of the titles he has swung on to his autograph. When he shall have done this in a satisfactory way, then he can ask decent people to give credence to what he says about his

symphyseotomy. Until he does this, or produces his patient, with reliable evidence to corroborate it, the Etowah Medical Society brands his claims as utterly false—without one particle of foundation.

The Etowah County Medical Society has the proofs on file to verify every statement made in this article, and we stand ready, and are anxious, to establish and maintain every word of it. We challenge William Thomas Coggin to successfully contradict it.

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P't Eto. Co. Med. So. Gadsden, Ala.

Abstracts.

TINCTURE FERRI CHLORIDI IN TYPHOID FEVER. — McNutt (*International Med. Mag.*) uses the tincture of iron in typhoid fever for the gastro-intestinal condition, for its surface intestinal antipyretic action. He administers it in glycerin and water, 10 to 30 drops every two to four hours. His practice has been to commence the administration of iron as soon as positive indications of typhoid are recognized. In his experience it has proven the most reliable of all gastro-intestinal remedies, and much more efficient than the muriatic acid without the iron. Besides its beneficial influence on the mucous membrane by its astringent and tonic action, limiting the hyperæmia, and consequently the exulations and tendency to ulceration and hemorrhage, it certainly has a sustaining influence by acting as a blood food in preventing waste of tissue. He often adds 1-50 or 1-100 of a grain of bichloride of mercury to each dose, and when the gastric symptoms are promi-

nent, one or two drops of liquor acidi arseniosi.

AN OPERATION FOR THE RADICAL CURE OF FISTULA IN ANO BY AN IMPROVED METHOD.—In an article which appeared in the July number of the *American Medico-Surgical Bulletin* under the above title, Dr. A. H. Goelet, of New York, described an operation which in his hands has been very successful. As in the older methods, the sphincter is completely divulsed and the fistula opened into the rectum and thoroughly curetted. The important part of the operation, however, lies in the method of suturing. This is as follows: In the deeper structures, two or more rows of buried, continuous sutures of fine catgut are employed, each row beginning at the upper angle beneath the mucous membrane and ending just within the integument of the perineum covering up the preceding row. In the rectal mucous membrane and the integ-

ument of the perineum, interrupted sutures of chromic catgut are used. The edges of the sphincter muscles are approximated with especial care. Deep sutures introduced through the rectal mucous membrane are deprecated by the operator because of the danger of leakage of septic matter along the track of the sutures, and because they obstruct the circulation and increase the oedema, thus interfering with primary union.

Dr. Goelet reported a case where two fistulæ existed, which had been treated after this method. The result was very gratifying. The wound healed by primary union, and, although the external sphincter had been cut in two places, at opposite points, and the internal sphincter at one point, the patient had complete retentive power. This result, contrasted with that obtained by the older methods, establishes this as an ideal operation.

The article concluded by emphasizing these essential details in the technique of the operation :

1. Complete divulsion of the sphincter.
2. Perfect asepsis.
3. Incision of the muscles at right angles to the fibres.
4. Thorough curettage of all fistulous tracts.
5. The use of buried sutures of fine catgut for the deeper structures, and interrupted chromic catgut sutures for the mucous membrane.
6. The rectal tube and dressing.
7. Absolute inactivity of the bowels and a liquid diet for five days following the operation.

THE TREATMENT OF SALPINGO-OVARITIS.—Dr. Auvar, editor of the *Paris Review of Gynecology* (*International Med. Mag.*) advocates the treatment of certain cases of subacute and chronic salpingo-ovaritis by the distention of

the vagina by tamponning. It is applied as follows: The patient is placed in position on a surgical chair or table and the vulva and vagina are washed out with proper antiseptic solutions. A Cusco speculum is then introduced, into which about a tablespoonful of glycerin is poured with a little iodoform, to prevent any decomposition; then with a pair of pincers a tampon as large as a walnut, made of cotton firmly pressed together, is introduced; this is passed into the posterior *cul-de-sac* of the vagina. The lateral *culs-de-sacs* are then tamponned in the same manner and thoroughly distended, and lastly, a tampon is placed in the anterior *cul-de-sac*. Thus the os uteri is entirely surrounded by tampons, each saturated with the glycerin and iodoform which have been poured into the speculum. These tampons should remain in place for two or three days, and then should be taken out by the physician in attendance, say every Monday, Wednesday and Saturday, or they could be removed Tuesdays and Fridays. When removed regularly every few days, they have a slight odor of fermentation if no iodoform has been used, but this does not seem to have any bad effect on the health of the patients. These tampons are to remain some time in place and be renewed, as stated above, from time to time. They will not interfere with micturition, nor defecation, nor do they entirely prevent coition. This occurrence would not be a fault, however, as it would only allow of a rest that would be useful in the treatment, and would not be carried out otherwise than by this somewhat forced method of abstinence.

It might be well in some cases to insist upon a certain amount of repose during this treatment, but this is not absolutely necessary. Laxatives and tonic medication can also be given at the same

time, and humid compresses on the abdomen can be used to advantage.

SYMPTOMS AND TREATMENT OF CHOLERA INFANTUM.—C. D. Hurt (*Atlanta Medical and Surgical Journal*). The symptoms of cholera infantum may be denominated usual or common, and unusual or rare. They may also be denominated malignant or benign. They are also dependent upon the age of patient and stage of the disease. Usually cholera infantum is ushered in by the violent vomiting, which may or may not be attended in the outset with diarrhœa, but the diarrhœa quickly follows. The action of the patient in the effort of vomiting, or I should say the action of the stomach, is usually characteristic of the presence of this dreadful malady; that is to say, when emesis comes on it is the result of a very violent spasm of the stomach, which ejects its contents in a manner suggestive of the forcible action of a syringe. Sometimes cholera infantum has what may be termed a prodromic stage. The patient is a little dull, loss of appetite, more or less pallor, possibly a little disturbance of the bowels in the form of diarrhœa; this condition may last indefinitely, but followed by cholera infantum it usually comes on in from 24 to 72 hours. Sometimes the first symptom is vomiting, then again the first symptom is constant colliquative discharges from the bowels. Usually fever of the intermittent type is present, the surface is cold, while a thermometer in the mouth or in the rectum measures a temperature of 102 or 104½. Coldness of the surface is therefore not indicative of the true temperature. The vomiting becomes very persistent and frequent, and the stomach rejects everything in the way of food, or even cold water. With this continued waste, both by vomiting and purging,

followed by a shock upon the nervous system, as well as the whole constitution, it is very readily recognized after it has existed for a few hours. Later on the tissues of the body waste very rapidly, the child becomes very weak and the skin very flabby, its eyes sunken and its countenance very pale. Attending this vomiting and purging there are usually very severe abdominal pains, causing the child to cry out. Sometimes there are cerebral complications, which are liable to develop constantly as the action of the kidneys may be interfered with. When we are called to a case of cholera infantum that has existed for several days we find general exhaustion, attended with emaciation and anemia, all tending to rapid dissolution. The disease usually lasts but a few days before fatal results follow, unless the disease is checked and recovery begins. There are, however, some cases which seem to assume chronic form, and which become complicated with entero-colitis. While in this condition the stomach has grown more tolerant of food and does not reject all, so that some nourishment is retained and assimilated.

Now as to treatment: When called to a child in the first stage of cholera infantum, whether vomiting and purging, one or both are manifest, we should endeavor by the most speedy and safe method to eliminate the causes and arrest the effect, assuming the causes to be such as have been already mentioned by Dr. Kime, who preceded me in his remarks—that is to say, the characteristic bacilli of cholera infantum. We endeavor in our treatment to destroy all these germs and to prevent any new development. While our efforts are extended in this direction, it is also well to take some notice of the effects which are already manifest upon the system, and meet them with proper treatment.

Quite a number of remedies are found in our vocabulary and many advocates for each. That which I have found most satisfactory is the administration of a small quantity of mercury, preferably in the form of calomel, say 1-10 or 1-12 of a grain, combined with a little pulverized opium, and from 1 to 3 grs. of bicarbonate of soda. A powder of such dimensions, given from one to four hours, according to the urgency of the case, will likely arrest vomiting, and so change the character of the stools as to show the presence of bile, and less of a liquid nature. This course of treatment may be pursued from twelve to twenty-four hours before the results are altogether satisfactory. Added to this we might use a cold water application, or the reverse is sometimes beneficial, a warm poultice over the abdomen and stomach. We should also endeavor to warm up the extremities. This is accomplished by the administration of warm mustard baths, repeated from two to four hours. The ordinary chalk and opium powders, given in doses of 4 grs., combined with 1-10 or 1-12 of a grain of calomel, proves very effective, in first, arresting vomiting; second, in quieting the nervous system and inducing sleep; third, in checking the bowels; fourth, in so altering the secretions as to bring about healthy stools. I have had much experience with this latter prescription, with very happy results. I sometimes use the bichloride of mercury, combined with a colorless solution of hydrastis, 1-100 of a grain of the former and 5 drops of the latter, repeated from one to three hours, according to the urgency. The bichloride has the property of lessening pain, checking the bowels as well as vomiting, and largely supersedes, if not entirely obviates, the need of opium. I have found this, however, better adapted to milder

cases, where the vomiting recurs from two to four hours, with the ordinary severe diarrhœa of the bowels. I have also had some experience with the arsenite of copper, repeated at short intervals, and in very minute doses, say 1-5000 of a grain, given in solution hourly. Nitrate of silver is recommended. I have had but little experience, and cannot speak as to its value. Stimulants are demanded in nearly all cases. It is a mistake to delay their use too long. Brandy is a preferable form, given in 10- to 20-drop doses properly diluted. Bismuth, creasote and the vegetable astringents have all been used largely. The first of these, I am satisfied, is a good absorbent, somewhat antispasmodic and astringent; combined with mercury and opium it serves a valuable purpose. The vegetable astringents I cannot indorse. I have failed to receive any benefit, and have been disappointed and lost valuable time waiting upon their use. I would recommend more heroic treatment. After the violence of the disease has been checked and the destruction of the bacilli or germs of cholera, we might then depend, more or less, upon these milder remedies. I have not mentioned the removal of the child from the unhealthy surroundings. This, of course, should in every instance be attended to. If it is in a marshy, malarial district, it should be removed to a drier, healthier atmosphere. If it is in a poorly ventilated dwelling, it should be removed to more healthy quarters. Change is beneficial, even from one healthy district to another. Another very essential thing is to guard well the changes in the temperature of the atmosphere. The circulation being weak, the extremities more or less cold anyway, should be protected against dampness and chilly mornings by the proper use of flannels. In other words,

the peripheral circulation should be heartily encouraged by all means possible and safe.

Now, as to the last, though not the least, in importance in all treatment, we come to that much disputed question, diet. Nature's nourishment in the form of mother's milk, coming from a healthy woman, cannot in any instance be improved upon, but unfortunately there are many children who are early forced from the breast, or who, on account of reasons uncontrollable, have to be raised from the bottle. The child thus dependent upon artificial means, has its way of successful growth and development to adult life largely hedged in. Its first summers, together with the work of dentition, have strewn the pathway with many victims. It is no easy matter for us to exercise hope, patience and perseverance when the little fellow is constantly rejecting all nourishment put into his stomach. We try the cow's milk, the condensed milk and the dozens of baby foods, with and without the presence of a pancreatin. We resort to the teas and the beef juices, and the whole catalogue of artificial nourishment; but, alas, have we not too often hurried by impatience into a too rapid succession of these varied forms of nourishment? I believe that the cow's milk, properly diluted and given in proper quantities at set intervals, may be most relied upon; and just at this place I desire to say that I believe that much of our trouble in overcoming this disease is due to over-feeding, either in quantity or quality, or both. So much do I believe this that I make it a rule to order the nourishment given at stated intervals in measured quantities, and to begin with it well diluted, depending somewhat upon the age of the child and the weakened condition of the stomach.

I think that the best brands of condensed milk are not to be condemned and discarded when properly diluted, and I believe that the only way of satisfactorily diluting them is by weight, rather than measurement; it being a very heavy liquid or semi-solid, can be heaped upon a spoon in such a manner as to make the quantity two or three times what is needed or ordered. Even the most intelligent mothers and nurses often go amiss on this line. When cholera infantum is complicated with entero-colitis or dysentery, I think enemmas of starch, with a little laudanum, occasionally repeated, are very beneficial. Some advocate the liberal flushing of the colon with tepid water. This, I think, does good in some instances.

POTASSIUM PERMANGANATE IN MORPHINE POISONING.—I recently met with the opportunity of trying permanganate of potash in a case of morphine poisoning. The patient had swallowed about 60 grains of morphine. The morphine had twelve minutes the start of the antidote. There was only slight drowsiness, but at times threatened narcosis. I administered 10 grains of the permanganate in a small glassful of water in three different doses within an hour, using in all about 30 grains of the permanganate, without the least unfavorable effect from its use. In ten hours from the time the morphine was taken the patient was well. He had no griping, no headache, or distress of any kind from the time the antidote was administered until he had entirely recovered from the slight drowsiness. For about an hour after swallowing the poison the patient was kept moving; then he was allowed to lie down and sleep without farther trouble. The discovery of Dr. Moor, of New York, is a great blessing. I would not be afraid of any case of opium poisoning now.—J. R. KELLY, M.D., in *Tri-State Medical Journal*.

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Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Specimen copies will be mailed to any address on application from a subscriber.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

THE RESTRICTION OF CONSUMPTION.

On September 30, 1893, the Michigan State Board of Health, probably the best organized and most aggressive body of its kind in this country, officially declared consumption and other diseases due to the *bacillus tuberculosis* to be "diseases dangerous to the public health," and adopted measures for its restriction. The great reduction in the number of cases of, and mortality from, scarlet fever and diphtheria that had resulted from the Board's system of popular education in regard to these diseases is sufficient reason for the adoption of the same measures in regard to consumption. Physicians and householders are required to report all cases of the disease to the local health officer as soon as its existence becomes known. A four-page leaflet on "The Restriction and Prevention of Consumption" is im-

mediately furnished to those persons who, on account of their proximity to the case, are in danger of infection. Disinfection is practised after death the same as in other contagious diseases. The Board also cordially endorsed a resolution introduced by the Secretary for the establishment of a State Hospital for Consumptives.

Since the action of the Michigan Board other boards, both State and municipal, have taken up the subject and some of them have adopted measures for the better protection of the people from this ever-present and fatal disease. The New York City Board of Health adopted resolutions urging upon hospital authorities the importance of separate wards for the treatment of tuberculosis, and asking the Commissioners of Charities and Corrections to provide a hospital to be known as "The Consumptive Hospital," where all cases of consumption should be treated. This latter resolu-

tion has already had good effect, in that an appropriation for this purpose has been made.

Though causing a larger proportion of deaths in our country than cholera, yellow fever and small-pox combined, or than any other three contagious diseases probably, there has been comparatively no organized movement made looking to its restriction, until the action of the Michigan board in requiring it to be classed among those diseases which shall be reported to the health officers. There are many obstacles, however, in the way of dealing with this disease in the same way as with the other contagious diseases, the chiefest being the long duration of the disease. These difficulties are very clearly and fully brought out in the discussion before the College of Physicians, of Philadelphia, which followed the reading of the following resolutions, offered by the council to which was referred the resolution with reference to the proposed action of the Board of Health:

Resolved, That the College of Physicians believes that the attempt to register consumptives and to treat them as the subjects of contagious disease would be adding hardship to the lives of these unfortunates, stamping them as the outcasts of society. In view of the chronic character of the malady, it could not lead to any measures of real value not otherwise attainable.

That strict attention on the part of physicians in charge of the individual cases, insisting on the disinfection of the sputum and of the rooms, on adequate ventilation, and on the separation of the sick from the well, as far as possible, will meet the requirements of the situation so far as they practically can be met, and better than any rules that, for diseases so chronic, can be carried out by a board of health.

That the College of Physicians respectfully requests that no official action be taken in the matter by the board of health, except the insisting on the disin-

fection of rooms in which consumptives have lived and died in instances in which such procedure is not likely to have been adopted under the direction of the attending physician.

This resolution was adopted after a quite extended discussion by many of the leading members of the College.

Notwithstanding the difficulties in the way, now that the nature of the disease, the mode of infection and the proper measures for its prevention are known, the time is at hand when boards of health and individual physicians cannot sit idly by and make no effort to stamp out this manageable plague, while thousands and hundreds of thousands of our citizens are carried yearly to their graves by it.

If any measure of success is to follow an effort in this direction, nay, if even the effort is to be made at all in this State, it will and must come through our State Board of Health. Let us, then, each and all, if we have at heart the welfare of our State, if we would use our influence in making possible the great move that will save to our State hundreds, yes thousands, of lives each year, impress upon those who are selected to frame our laws the importance of a well-equipped board of health—a board that is vested with some authority, and urge upon them the great need for strengthening the foundations of our board, that it may be not merely a gatherer of statistics and a guard to stand before our doors when foreign epidemics threaten us, but that it may be working persistently to relieve our people from these ever-present preventable diseases, which we have gotten to regard with but little concern, because they are so common.

But more of this anon. The point we wish to emphasize just now is simply this—knowing the cause of a disease, the method in which it is carried from one person to another, that it can

be prevented, and the proper steps for its prevention, it is our duty as trustees of the health and lives of the people to use this knowledge for the prevention of the disease and the preservation of those lives.

HONOR TO WHOM HONOR IS DUE.

In a recent issue of the JOURNAL we made a note of the fact that while Dr. Charles Jewett, of Brooklyn, N. Y., was supposed to have done the first symphyseotomy in this country, it turned out that Dr. Wm. Thomas Coggin, of Athens, Ga., had performed the operation nearly six months before. Soon after we received a letter from Dr. Jewett, stating that there was some doubt as to the truth of Dr. Coggin's claims, and that the matter was being investigated. The result of that investigation appears in a communication to the *Alabama Medical and Surgical Age*, from the Etowah County (Alabama) Medical Society, and which we take much pleasure in publishing in full in another department.

The facts brought forth in this letter

brand Dr. (?) Coggin as a most contemptible fraud and impostor, and the care with which these facts have been sought and the sources from which they are derived are sufficient evidence of their genuineness. Nothing seems to have been too mean or too low for him—perjury and forgery were among the first material he used to construct the ladder upon which he sought to reach honor and fame, but this last round was too rotten to withstand the weight he placed upon it, and the whole structure has given way, while he is plunged into the abyss of shame and disgrace which has been waiting to receive its rightful prey. It is a just and righteous fate, and one which should come to all who seek to steal another's glory. Were this man practising medicine in the good old State of North Carolina, he would soon have his license revoked by the Board of Medical Examiners, to whom the State has given this power. Let him go the rounds of the journals, let the lie he has been living be made known to every doctor in the land, that he may have the reputation which belongs to him—instead of a skilled and honored surgeon, a perjurer, a forger, an infamous impostor.

Society Reports.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA—FORTY-FIRST ANNUAL MEETING.

Held in Greensboro, N. C., May 15th, 16th and 17th, 1894.—(Continued from Vol. XXXIII., Page 274.)

W. H. H. COBB, M.D., President, in the Chair.

The Committee on the Revision of the Code of Ethics made the following report, which was accepted and adopted:

The Committee appointed to consider the advisability of revising the Code of Ethics, recommend that the Secretary be instructed to reply to the communication of the Secretary of the American Medical Association that this Society does not deem it wise to make any change in the Code of Ethics.

Respectfully submitted,

J. P. MUNROE,
W. T. CHEATHAM,
I. W. FAISON.

Dr. J. A. Hodges read a paper entitled "The Value of Electricity as a Therapeutic Agent."

The following report of the Board of Censors, in regard to Dr. Strickland, was made, which, after some discussion, was accepted and adopted:

We, the Board of Censors of the North Carolina Medical Society, submit the following as our report in the case of Dr. J. T. Strickland, charged with unprofessional conduct towards his medical brethren, and want of integrity as a citizen: After exhaustively and carefully considering all the evidence submitted to our Board, feel that, consistent with our duty, we can do nothing less than recommend that his name be dropped from our list.

(Signed) THOS. E. ANDERSON,
S. D. BOOTH,
H. H. HARRIS.

The Society adjourned to meet at 8:30 at the State Normal School.

SECOND DAY—EVENING SESSION.

The Society met at the State Normal and Industrial School, and was called to order at 8:30 o'clock.

After a few words of welcome from Dr. C. D. McIver, the President of the Institution, the orator of the occasion, Dr. E. G. Moore, was introduced by the President of the Society, and in the presence of the students of the School

and many of the citizens of Greensboro, delivered the Annual Oration.

On motion, the Address was referred to the Committee on Publication.

After adjournment the Society was entertained by the students, who rendered, in most excellent style, a play entitled "The Chronothanatolettron."

The Society then adjourned until tomorrow morning at 9 o'clock.

THIRD DAY—MORNING SESSION.

The Society was called to order at 9 o'clock.

The Committee on Nominations reported as follows, which was adopted:

Annual Orator—Dr. W. P. Mercer.

Annual Essayist—Dr. R. H. Stancell, Jr.

Obituary Committee—Drs. R. L. Payne, R. H. Lewis, Thos. M. Riddick.

Delegates to the American Medical Association—Drs. Karl von Ruck, Thos. E. Anderson, I. W. Faison, T. S. McMullan, W. J. H. Bellamy, Alb. Anderson, Geo. G. Thomas, W. J. Lumsden, S. L. Montgomery, W. P. Beall, J. B. Powers, S. W. Battle.

Delegates to the Southern Surgical and Gynecological Association.—Drs. J. M. Hays, David Tayloe, W. A. Graham.

Delegates to the Virginia Medical Society—Drs. R. H. Whitehead, Joseph Hill, Chas. Duffy, J. W. Walton.

Delegates to the South Carolina Medical Association—Drs. R. S. Young, W. H. Wilson, M. C. Hunter, W. W. Pharr.

Delegates to the American Public Health Association—Drs. R. H. Lewis, H. T. Bahnson, W. J. Jones.

Delegates to the North Carolina Pharmaceutical Association—Drs. H. B. Weaver, Chas. Hilliard, Charles Jordan, J. A. Burroughs, J. P. Fearrington.

Delegates to the American Pharmaceutical Association—Drs. S. W. Battle, W. H. Cobb, John Whitehead.

On request of Dr. Anderson, Dr. Hill was appointed to prepare an elaborate paper, to be read at the next meeting, on The Indigenous Plants of North Carolina.

A motion to suspend the order of business and select the time and place for the next meeting of the Society, was laid on the table.

The Secretary read a letter of regret from Drs. Willis Alston and J. G. Ramsay.

A letter from Dr. A. B. Pierce, of Weldon, was also read.

In the absence of those who were to have read papers in the Section on Gynæcology, the paper of Dr. W. T. Pate, on Family Predisposition to Intestinal Hæmorrhage in Typhoid Fever, was read.

The paper was discussed by Drs. Long, O'Hagan, Fox and Sikes, and was referred to the Committee on Publication.

Dr. Annie L. Alexander read a paper on Physical Development and Training Girls, which was referred to the Committee on Publication.

The next paper was Prevention and Cure of Perineal Laceration, by Dr. W. E. Fitch, which was referred to the Committee on Publication.

The next paper, Hegar's Sign of Pregnancy, was read by Dr. J. W. Long.

On motion, Dr. Hodges read a paper prepared by Dr. Loftin, reporting A Case of Compound, Comminuted Fracture of the Skull.

The Committee on Finance made the following report through Dr. O. D. King:

Your Committee on Finance, having examined the books and accounts of the Treasurer, find them correct, as follows:

Balance on hand May 16, 1894..	\$1,443 08
Amount paid out per vouchers to date.....	\$822 45

Balance on hand.....	\$620 63
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Your Committee recommend an assessment of \$2.00 per capita for the ensuing year; and further recommend that the salary of the Secretary and Treasurer for the ensuing year be the same as it now is.

W. P. BEALL,
S. L. MONTGOMERY,
OGDEN D. KING.

Comm. on Finance.

The report was accepted and adopted.

The reports of the committees appointed to suggest some suitable action on the part of the Society for the perpetuation of the memory of Drs. S. S. Satchwell and Charles Duffy, were called for. The members of the committees were absent.

The report of the Committee on the President's Message was taken up.

The Secretary thought it would be an advisable thing for the Society to have a permanent Secretary or Librarian. He advocated the establishment of that office, that the valuable exchanges from other societies might be preserved and used by members as references.

It was moved that the President should appoint an officer corresponding to Secretary and Librarian to take charge of any books or periodicals as may be sent to the North Carolina Medical Society, and preserve them.

The Secretary stated that the establishment of such an office would involve a change in the Constitution, and that it was not in the province of the President to appoint such an officer.

On motion, a committee of three, consisting of Drs. Bahnson, Way and T. S. McMullen, was appointed to consider the matter.

There being no voluntary papers, verbal reports of cases were called for.

Dr. Long exhibited some gall-stones and related the incidents of the case. They were taken from the gall-bladder

of a lady 41 years old and weighing 250 pounds, the mother of ten children and in good health. The woman complained of colic seated in the stomach. One physician had pronounced it appendicitis. On opening the abdomen, it was found that the gall-bladder was distended to such a degree that it displaced the neighboring viscera. An incision was made into the gall-bladder and it was emptied of its fluid and of the stones. By actual count, it was found that 196 stones had been removed. An anastomosis was then established between the gall-bladder and the duodenum by means of the Murphy button, which the reporter exhibited, with the method of its application.

Dr. McMullen reported two cases upon which he had operated with success—one was a laparotomy upon a woman, who had been bed-ridden for many years; now she is well and suffers no pain. The other was an operation of trephining for traumatic epilepsy in a young man. The last time he heard from the man, which was eighteen months after the operation, he had not had a return of the epileptic attacks.

Dr. Jones reported the case of a young girl. She had enjoyed fairly good health up to that time, having had a few attacks of colic of short duration and relieved by simple means. But in this attack the pain was very severe. The case was diagnosed to be obstruction. An operation was strongly advised immediately, but refused by the family until two or three days later. The operation was then performed, but with little hope of success. The entire jejunum and ileum were very much distended. With slight effort the point of obstruction was detected and relieved. The patient came from under the anæsthetic very nicely, and a day or two afterwards was doing well. The opera-

tion was performed on Saturday. Tuesday morning the news came of her death.

He reported another case of a negro woman of about 28 years of age. Pregnancy was diagnosed. She had not menstruated for about eighteen months. On opening the abdominal cavity, it was found to be a sub-peritoneal fibroid. The attachments to the uterus were of such a nature that it drew the fundus down, and the fundus represented the head of the child, while the mass of the fibroid had been taken for the body of the child. The tumor was removed. The woman's progress was very good for several days, but she was half-witted and did not follow the instructions of the physicians, and consequently died.

The following case was reported by Dr. Sykes. It was the case of a boy who had cut himself in Scarpa's triangle. He bled very profusely, but the hemorrhage was stopped by pressure by the boy's parents. The Doctor was not able to determine the exact extent of the injury. He put the child to bed and left him resting quietly. The next day the hemorrhage returned and he was sent for. He invited another physician to go with him, and went to the house with the determination of cutting down and finding what was the source of the hemorrhage. After examination, as the hemorrhage had been stopped in the same manner as at first, his colleague advised against the operation, and he went away without performing it. A week later he was sent for again, for the hemorrhage had returned. This time the other physicians agreed with him that it was time for something to be done. It was found that the femoral artery had been cut. The artery was ligated and all precautions taken to prevent gangrene, and the boy recovered. Attention was called to the prompt treatment required in all such cases.

Dr. Sikes told of the case of a man who had received several wounds—one very severe one on the side of the neck. When the Doctor reached the man he found his hands cold and pulseless, and on examination his first impulse was to give him up for dead. But he thought that as long as there is life, it is the physician's place to make effort. After sewing up the wounds and putting the patient to bed, he remained with him several hours. The patient regained consciousness and expressed himself as very comfortable. The case went very smoothly from Wednesday to Sunday afternoon, when the man, in making an effort to change his position, caused the hemorrhage to start afresh. They succeeded in checking the hemorrhage, and the patient began to regain his strength again. In about three weeks the wound had healed nicely. Then he noticed an enlargement at the place of the wound, and discovered that it was a traumatic aneurism. In a few days the tumor ruptured and the man bled to death. Dr. Sykes asked if he was justified in not performing an operation at the first, when the man was so nearly lifeless from the loss of blood.

Dr. Hodges recommended the Marcy buried continuous suture for wounds of the face and abdomen, and gave a description of it.

Dr. Schenck added his testimony to that of Dr. Hodges. He had seen this suture used on both face and neck with good results in causing a minimum of scar.

Dr. Long demonstrated the technique of this suture on the blackboard. He recommended it because of its not being so apt to cause stitch-hole abscesses.

Dr. Kent reported a case which occurred in his early practice. A large blood-vessel in the neck of the man was wounded, but on account of the haste

the vessel was not recognized. By catching the cut with forceps the hemorrhage was controlled. With a needle a ligature was carried directly through the lumen of the vessel and tied. The large wound and several smaller ones were stitched up and the bleeding entirely stopped. With the use of stimulants the man was restored to consciousness. The next morning Dr. A. Jobe, of Tennessee, was called in for consultation, as there might be some legal question as to the treatment, and he desired the opinion of an older surgeon. He said that the case had been properly treated, and the man had better be let alone. The suture with which the vessel was tied worked its way out with only a few drops of hemorrhage. The man recovered.

Dr. Booth moved that the thanks of the Society should be extended to Dr. McIver and the young ladies for the pleasant entertainment given the Society on Wednesday evening.

The motion was carried unanimously.

Dr. Jones suggested that a record of surgical work done by members should be sent to Dr. Munroe, as he is getting a record of the surgical work in the State.

The Editor of the NORTH CAROLINA MEDICAL JOURNAL announced that the prize offered by that journal for the best History of Surgery in North Carolina would be increased to \$50 for the next meeting.

The Society then adjourned to meet at 2:30 p. m.

THIRD DAY—AFTERNOON SESSION.

The first order of business was the selection of time and place of the next meeting.

The following cities were placed in nomination: Goldsboro, Asheville, Charlotte and Morehead City.

On motion, the vote was taken by ballot, and Goldsboro receiving the highest number of votes, was chosen.

The next thing in order was the selection of the time of the next meeting.

By request of Dr. Anderson, Dr. Hays offered a resolution that the time of meeting be changed from May to October.

After some discussion the resolution was laid on the table, and, on motion, the second Tuesday in May was selected as the time for the next meeting.

The hour having arrived for the installation of officers, Drs. Hays and Booth were appointed to escort the newly-elected President to the rostrum.

The retiring President, after thanking the Society for the honor shown in placing him in such a high position and for the courteous consideration extended him, handed the gavel over to his successor, saying that the Society could not have chosen one better fitted to preside over it.

Dr. Tucker, in assuming the Chair, thanked the Society for the honor conferred upon him, and promised to bring to the discharge of his duties an earnest desire to promote, in every way, the interests of the Society.

Dr. Booth moved that the thanks of the Society be extended to Dr. Cobb for the able and efficient manner in which he had presided over the body, which was carried.

The following chairmen of sections and committees were appointed:

Section on Pathology and Microscopy—Dr. Wm. Graham, Charlotte.

Section on Practice of Medicine—Dr. Thomas M. Riddick.

Section on Anatomy and Surgery—Dr. C. O'K. Laughinghouse, Greenville.

Section on Materia Medica and Physiology—Dr. A. R. Wilson, Greensboro.

Section on Medical Jurisprudence and

State Medicine—Dr. J. A. Burroughs, Asheville.

Section on Obstetrics—Dr. Joshua Tayloe, Washington.

Section on Gynæcology—Dr. A. H. Harriss, Wilmington.

Section on Materia Medica and Therapeutics—Dr. Thomas L. Booth, Stem.

Committee on Duffy Prize—Drs. R. Lee Payne, Jr., A. W. Knox, Arch. Cheatham.

Committee on NORTH CAROLINA MEDICAL JOURNAL Prize—Drs. W. P. Beall, R. L. Gibbon, Wm. H. H. Cobb.

On motion, the stenographer was paid \$25 for her services.

Dr. Booth moved that the thanks of the Society be extended to the physicians of Greensboro and the Local Committee of Arrangements on account of the kindness with which the members of the Society were received in the city. Carried.

The Committee on Credentials reported favorably on the following names of applicants for membership, and they were admitted:

Drs. G. A. Smith, R. A. Smith, J. M. Williams, W. O. Spencer, John A. Myers, L. H. Hill, G. M. Ivie, Thomas A. Boaz, L. L. Johnson, A. J. Crowell, George R. Hughes, W. C. Ashworth, W. L. McCaulless, D. J. Hill, W. W. Pharr, J. R. Gordon, O. B. Stroud, J. D. Edwards, A. H. Harriss, W. B. Norment, N. O. Petree, W. J. Vestal, D. R. Schenck, W. J. Richardson, A. E. Lebetter, B. F. Hallsey, D. A. Robinson, C. T. Harper, C. O'H. Laughinghouse, J. R. Hester, G. W. Lewis, A. A. Kent, R. E. Cox, W. W. McKenzie, W. J. Jones, Jr., J. M. Hodges, W. C. Steele, C. S. Gilmer, C. L. Jenkins, J. D. Jenkins, C. E. Walker, Thomas M. Riddick, L. D. Wharton, Herbert Mease, W. S. Taylor, J. E. Logan.

On motion, the Society adjourned, to meet in Goldsboro the second Tuesday in May, 1895.

Correspondence.

Editor N. C. Medical Journal :

In your issue for May I notice that the Peacock Chemical Co. are aggrieved, because, in an article not written for publication, I alluded to some of their advertising methods as savoring of quackery, and deny the truth of my statement that a preparation equally as good as theirs could be made at one-half the cost.

In support of this statement, allow me to quote a few figures.

The Peacock Chemical Co. do not give us the relative proportions of the different bromides in their preparation, and this might readily affect the cost, as will be seen by the prices quoted below; but, assuming them to exist in equal proportions, my statement holds good.

I presume the Peacock Chemical Co. will admit that Merck's c. p. drugs are at least equal in purity to those made by themselves; and I feel sure that the medical profession will accept his goods as standard

W. H. Schieffelin & Co., New York, quote as follows :

Ammo'm Brom., C. P, Merck, p. lb.,	60
Calcium " " " "	1.60
Lithium " " " "	3.15
Potassium " " " "	68
Sodium " " " "	68

Cost of one pound combined bromides 1-5 of 6.79, or \$1.36 per pound. As it requires one quarter pound of bromides to make one pound of elixir five bromides, containing 15 grains to f 3 i, we find,

Cost of $\frac{1}{4}$ lb. combined bromides...34 c.
 " simple elixir to make 1 lb..33 c.

Total cost.....67 c.

Wholesale cost of one pound Peacock's Bromides, \$1.34, being exactly

twice the cost of the home-made product. "*Quod erat demonstrandum.*"

It is not my province to defend the retail druggist from the thinly veiled charge made by Peacock Chemical Co., that he dispenses impure drugs; but I assert that the druggists of Greensboro are educated and honorable pharmacists, who would never think of dispensing impure drugs of any kind in a prescription, and I feel sure that the same thing may be truthfully said of the druggists of our State as a class.

I repeat, therefore, that our druggists can, and do, dispense an elixir of five bromides made by themselves, which is as pure, palatable and efficient as Peacock's Bromides, at one half the cost of that preparation—the assertion of the Peacock Chemical Co. to the contrary notwithstanding.

Upon this statement of facts, which any physician can verify for himself, I rest my case.

Yours very truly,

W. P. BEALL.

[We have given space to Dr. Beall's communication that he might have the opportunity of stating the grounds upon which the assertion in his paper, read before the Guilford County Society, was based. As we cannot see how a continuance of the discussion will benefit the profession at large, each of whom is expected to act upon his own judgment and sense of propriety in prescribing "specified" remedies, it will close here.—Ed.]

A prominent surgeon of Chicago says that surgeons of to-day are more afraid of blood than of nerves. It should be the other way.—*Ex.*

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Dr. W. E. Fitch has removed from Graham to Durham, N. C., where he will continue the practice of medicine.

The North Carolina Board of Medical Examiners will hold a summer session at Morehead City, beginning Tuesday, July 17th.

The fourth annual meeting of the Electro-Therapeutic Association will be held in New York, September 25th, 26th and 27th, at the New York Academy of Medicine. Members of the medical profession are cordially invited to attend. William J. Herdman, M.D., President; Margaret A. Cleaves, M.D., Secretary.

A young medical man who runs off into a specialty, honestly believing that a human organ can be studied and treated separately, like the wheel of a watch, has not intellect enough to be a physician, and ought to have been discouraged from entering the ranks.—*Abra. Jacobi.*

HEALTH OF WILMINGTON.—The following is the mortuary report for Wilmington for the month of June, 1894:

	Whites.	Col.	Total
Population.....	9000	13000	22000
Deaths.....	6	24	30
Death-rate represented..	8.	22.2	16.4

There was one death from typhoid fever, one from malarial fever, one from pneumonia and three from consumption. All of these were among the colored population.

Dr. Guiteras, the leading authority of the day on yellow fever, has entered

upon a study of the nature of the fevers of the Southern States, that he may compare their characteristics with those of yellow fever, especially as it affects children. We anticipate some interesting and surprising information as the outcome of this investigation and await with eagerness the doctor's report.

Dr. W. G. Christian, of Charlottesville, Va., who was appointed temporarily to fill the chair made vacant by the death of the lamented Professor Towles, has been elected Professor of Anatomy and Surgery. Dr. Christian is a man of great capabilities and of some experience in teaching and the chair will not suffer at his hands.

THE NUISANCE OF CARPET BEATING IN POPULOUS SECTIONS.—One of our contemporaries has the following suggestion as to carpet-beating in cities: "We have often been asked by citizens how articles to be cleaned should be treated without beating, and we beg to suggest that if they were spread upon the grass and thoroughly swept with a stiff broom moistened with water with which a little ammonia has been mixed, the object would be most thoroughly accomplished and one of the most dangerous and disagreeable nuisances to which our citizens are now subjected, entirely abated. Articles of clothing should be hung upon a line and brushed with a hand-broom treated in a similar manner." In the country, it matters not about the shaking out of household filth,

such as is deposited by myriad footsteps, but in cities the matter becomes a nuisance, dangerous and detrimental to the public health. This latter statement is embodied in the sanitary code of more than one of our cities many years ago, and long prior to the introduction of bacteriologic considerations. From the point of view of the bacteriologist, the wisdom of having a distinct prohibition against the reckless distribution of house-dust is undoubted. There is no record yet made up as to the exact numerical proportion of pathogenic germs, but we are prepared to take sides with those who hold that one of the filthiest things in nature is the dirt beaten out of a dirty carpet.—*Ex*

The forty-fifth annual meeting of the American Medical Association, held in San Francisco, has been voted a scientific and social success. There were nearly 600 members registered notwithstanding the "hard times" and the unfavorable weather. The whole attendance reached about 1,200. The Committee of Arrangements carried out their plans to the great pleasure of everyone. Work and social entertainment were plentiful, and each received its due share of attention.

Dr. William Middleton Michel died at his home in Charleston, S. C., June 4th, 1894, in his seventy-third year. He was conspicuous in Charleston both as a physician of marked ability and a citizen of sterling worth, and his professional reputation extended over the whole South. He graduated from the Medical College of South Carolina in 1847. He served as a surgeon in the Confederate service, being in charge of the hospital at Richmond to which South Carolina soldiers were assigned. He served on the editorial staff of the

Confederate States Medical and Surgical Journal and also of the *Charleston Medical Journal*.

Dr. Ezra M. Hunt, who has received distinction as a sanitarian, died in Metuchen, N. J., on the 1st inst. He was in his sixty-fifth year.

Mr. J. Young, Principal of the Institution for the Deaf and Dumb and the Blind desires the name, postoffice, township, county and nearest railroad station of every blind child in North Carolina; also the name of the parent or guardian of such child. With such data he will correspond with the parents and guardians of these children, and in this way put them in reach of an education.

THE MEDICAL FEATURES OF CARNOT'S FUNERAL.—During the progress of the funeral of President Carnot, in Paris, on July 1st, there were over 500 persons taken to various hospitals by the ambulance service. Many were cases of sunstroke owing to the intense heat, and others were the usual minor accidents and prostrations accompanying such great crowds as were then gathered in the streets.—*Ex*.

THE HOLY COAT OF TREVES.—The Bishop of Treves has published a book recounting 11 miraculous cures effected during the exposition of the Holy Coat in that city in 1891. As the attendance at Treves was many thousands, the percentage of recoveries is certainly not large. An example of the 11 cases is quoted by the *Medical Record*: A child named Wecker, who, according to a certificate signed by Dr. Koeller, of Berlin, was suffering from intestinal tuberculosis, was taken to Treves and allowed to touch the relic, and was then

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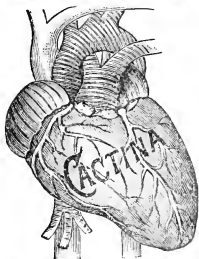
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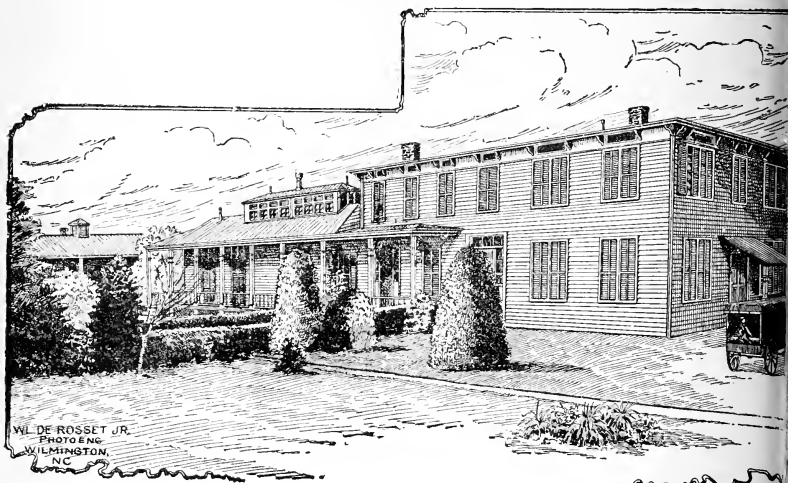
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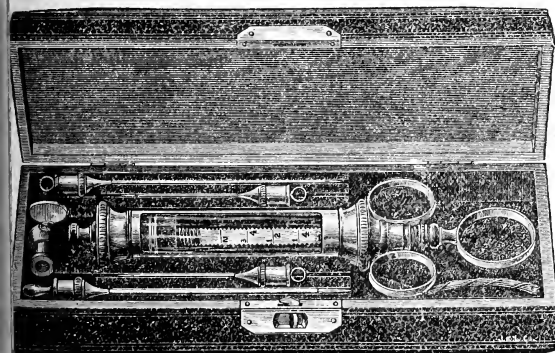
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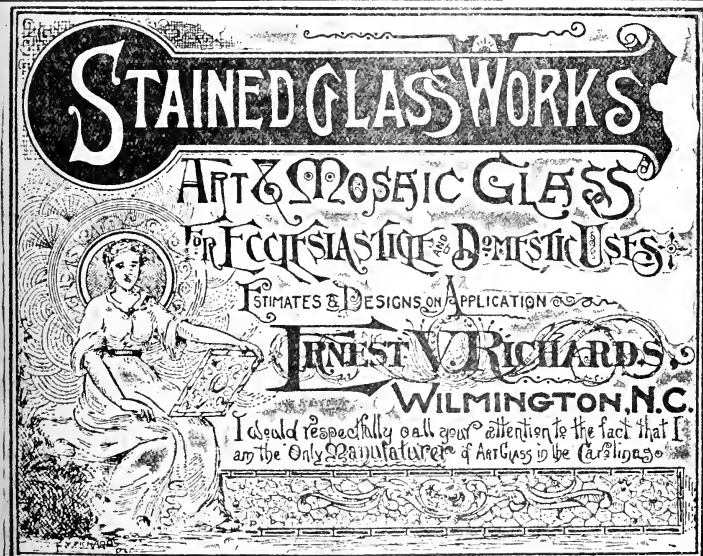
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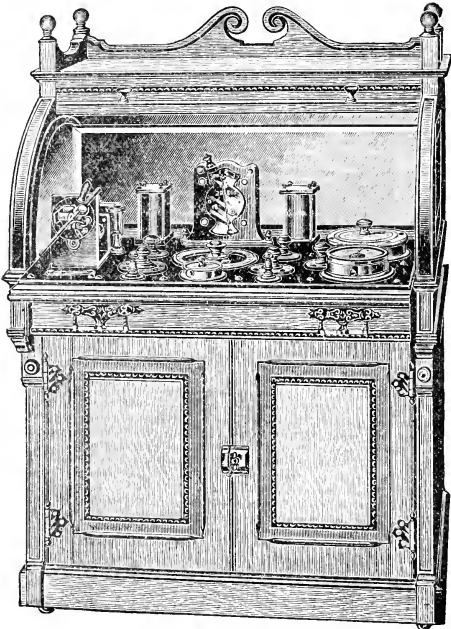


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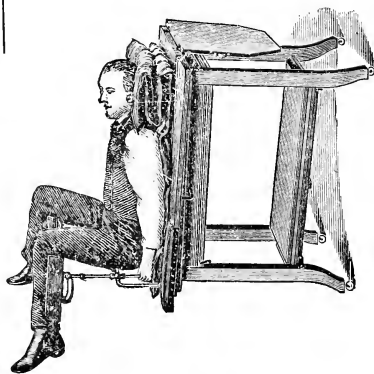
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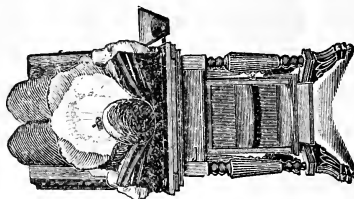
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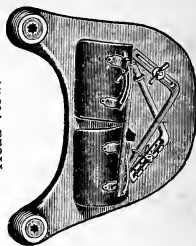
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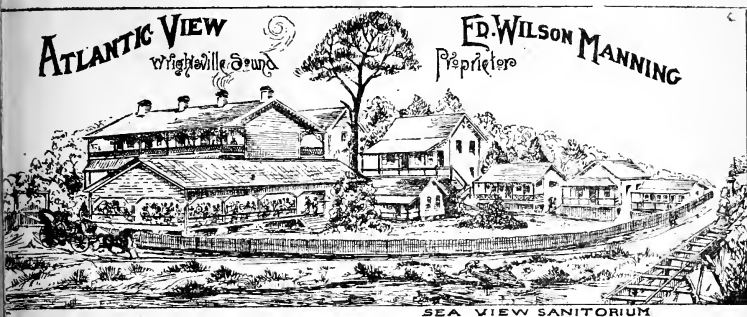
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Table of Contents, - - Page 5.
Index to Advertisers, - Page 6.

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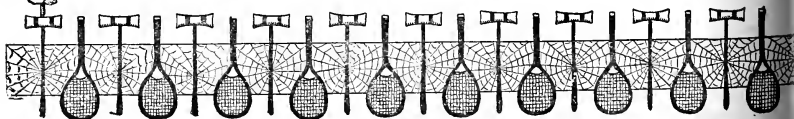
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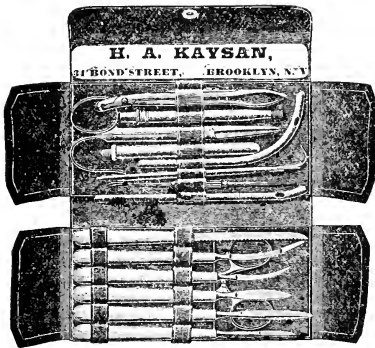
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Table of Contents.

Original Communications :

Physical Development and Training of Girls.— <i>Annie L. Alexander, M. D.</i>	51
Ptomaine Poisoning and Gastro Intestinal Antisepsis.— <i>J. R. Irvin, M. D.</i>	55
The Prevailing Fevers of Barnwell County, South Carolina.— <i>E. L. Patterson, M. D.</i>	61
Report on Progress of Surgery.— <i>O. B. Mayer, M. D.</i>	63
The Necessity of Legislation for the Prevention of Blindness in South Carolina.— <i>Chas. W. Kollock, M. D.</i>	67
Conservative Surgery of the Hand.— <i>W. F. Faison, M. D.</i>	69

Selected Papers :

The Pathology of Peniculous Anæmia.— <i>Wm. Moser, M. D.</i>	72
The Use of Acetanilid in Medicine and Surgery.— <i>G. W. Woods, M. D.</i>	74

Abstracts :

Recovery after a Pistol Ball Passes through the Brain; Sources of error in Testing for Sugar in the Urine.....	80
New Operation for Piles; Serotherapy..	82
The New Mydriatic, Scopolamine; A Treatment of Typhoid Fever.....	83

Editorial :

Systematic Study.....	85
Not Exactly.....	86

Reviews and Book Notices :

Psychology and Mental Disease.— <i>Burr</i> ; Diseases of Women.— <i>Garri-gues</i> ; Treatment of Naso-Pharyngeal Diseases and Their Aural Consequences.— <i>Spencer</i> ; The Care and Feeding of Children.— <i>Holt</i>	87
A Manual of Instruction in the Principles of Prompt Aid to the Injured.— <i>Doly</i> ; Practical Urinalysis and Urinary Diagnosis.— <i>Purdy</i>	88

Correspondence :

North Carolina Doctors in the Continental Army.....	88
Red Iodide of Mercury in the Treatment of Constitutional Syphilis.....	89

Notes of Practice :

Diphtheria, 68; Strychnine as a Cardiac Stimulant, 71; Atropine in Rigid os, 73; Saccharine, 79; Eczema, Burns and Carbuncles, 90; Milk Leg, Summer Diarrhoea, Diabetes Mellitus, 91; Aseptic Surgery, 92.

Miscellaneous Items.....	92
--------------------------	----

Reading Notices.....	97
----------------------	----

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Index of Advertisers.

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Fairchild Bros. & Foster.....	Cover 1	University of Maryland.....	16
Parke Davis & Co.....	" 1	Tulane University.....	17
Pope Mfg. Co.....	" 2	University City of New York.....	18
Mr. Fellow.....	" 3	Medical College of South Carolina.....	19
The Arlington Chemical Co.....	" 4	University College of Medicine.....	20
W. H. Schieffelin & Co.....	1	Jefferson Medical College.....	20
Battle Creek Sanitarium.....	2	St. Luke's Home.....	20
H. A. Kaysan.....	2	Codliver Glycerine Co.....	20
C. F. Boehringer & Soehne.....	3	Wilmington City Hospital.....	21
Sharp & Dohme.....	4	Lambert Pharmacal Co.....	22
Henry K. Wampole & Co.....	5	Mariani & Co.....	23
The Sanitarian.....	6	Walker-Green Chemical Co.....	23
Virginia Pharmacal Co.....	7	Frederick Stearns & Co.....	23
Purcell, Ladd & Co.....	7	Thos. F. Goode.....	24
Queen & Co.....	8	N. Y. Pharmaceutical Co.....	25
Vaccine Virus.....	8	Bartlett, Garvens & Co.....	25
Antikamnia Chemical Co.....	8	Harris Lithia Water.....	26
Peacock Chemical Co—Sultan Drug Co....	9	Maltine Mfg. Co.....	27
Chas. Marchand.....	10	H. O. Hyatt, M. D.....	27
Wm. R. Warner & Co.....	11	Dios Chemical Co.....	28
Cal. Fig Syrup Co.....	12	McIntosh Battery Co.....	28
Od Chemical Co.....	13	Scott & Bowne.....	29
Julius Fehr, M. D.....	13	Battle & Co.....	29
Kentucky School of Medicine.....	14	Rio Chemical Co.....	30
Bellevue Hospital Medical College.....	14	Seaboard Air Line.....	31
Chattanooga Medical School.....	14	Daggett Table Co.....	32
University of North Carolina—Med Dept.....	15	Atlantic View.....	33
North Carolina Medical College.....	15	Svapnia.....	34
University of North Carolina.....	15	C. N. Crittenton.....	34
University of Pennsylvania.....	15		

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PHYSICAL DEVELOPMENT AND TRAINING OF GIRLS.

BY ANNIE L. ALEXANDER, M.D., Charlotte.

(Read before the North Carolina Medical Society, May 17, 1894.)

Preventive medicine has come to be an important branch of study in the medical profession. Many of the colleges have introduced chairs for its teaching. The custom of the Egyptians to pay the doctor so long only as he keeps the family well, has much in it to recommend it to our consideration. Every means should be used to prevent disease.

The most important department of medicine has come to be the diseases of women. My experience in ten years' practice has proven to me that many of these diseases are preventable, by proper physical training of the girl from infancy. The vast majority of mothers are ignorant of the first principles of physiology and hygiene, and

hence cannot teach their daughters. It is the duty of the physician to instruct mothers and teachers, and how rarely is this done before the girl is injured. We should consider this our duty as surely as we do to protect against small-pox or diphtheria.

The time for sentimental ignorance is past; anatomy, physiology and hygiene should be taught in the home circle and in schools. These branches are taught to a certain extent in most of our schools for girls, but not thoroughly, the teachers frequently not practicing what they teach.

Canon Kingsly, in his book on "Health and Education," says: "Let duly educated and legally qualified women teach women what every woman ought to

know. . . . Let woman be restored to her natural share in the sacred office of healer which she held in the middle ages and from which she was thrust during the sixteenth century." In the past twenty-five years such women as Drs. Elizabeth and Emily Blackwell, Mary Putnam-Jacobi, Mary Safford, and many others, all "thoroughly educated and legally qualified" women physicians, by their printed and oral addresses have awakened thought, stimulated inquiry and inaugurated a reform in habits and dress that is much needed.

A few days ago Dr. William Blakie had an article in *Harper's Magazine* in which he showed that the standard of physical development of the present generation is not up to the standard of our ancestors. The brains of the American children are stimulated to the highest degree, while the poor little bodies are neglected; we see stooping shoulders, narrow chests, thin and flabby muscles—the brawn is not equal to the demands of the brain. It is only in the *best* schools that the gymnasium is used for physical culture.

Many of the ills of women can be traced directly to faulty dress, neglect of hygienic principles and neglect of mothers and teachers in teaching girls what they should know of themselves. The subject of dress reform has been agitating the minds of thinking women for the past quarter of a century.

Invalidism of young girls is attributed to every cause but the right ones—faulty dress, want of proper exercise, regular hours, proper eating and the knowledge of their physical functions. Every college for girls should have lectures weekly from a "thoroughly educated and duly qualified" woman.

Mrs. Mary Livermore says there is a theory practiced among civilized races which may be worded thus: "God

knows how to make boys, and when He sends a boy into the world it is safe to allow him to grow to manhood as God made him; he may be too tall or too short for our notions, too stout or too thin, too light or too dark; nevertheless it is right, for God knows how to make boys. But when He sends a girl into the world it is not safe to allow her to grow to womanhood as He made her. Some one must take her and improve her figure and give her the shape in which it is proper for her to grow." Accordingly the growing girl is encased in a stiff, unyielding corset, and her physical deterioration begins.

We read that in the days of primitive man, women first began to shape themselves to an ideal. Homer's Juno wore a many-layered girdle. In the dark ages lacing disappeared from Europe, to reappear in the sixteenth century. The corset of Catherine de Medici and of Elizabeth was a sheath of nearly solid metal—indeed, a "terrible engine." Ambroise Paré testifies that from such pressure death occasionally ensued, citing his "*sectio cadaveris*" on a subject whose lower ribs over-rode one another. During the Revolutionary period and the early part of this century, tight lacing was more prevalent than at the present time.

The tight corset and bands have the same effect on a growing girl, but not so limited, as a tight band fastened around a growing branch of a tree—the circulation is impeded and the growth of the compressed parts interfered with. No young growing girl should be allowed to wear a corset. The women in the medical profession, who are gaining in numbers, influence and practice, denounce the corset unqualifiedly. Every day we see women suffering from its pernicious effects. It enhances the perils of maternity and inflicts on the

world inferior children. "The strength of posterity is, in the womanly sense, of the present. All that we do and think, even to the dressing of our bodies, generations are powerless to eradicate."

It is just at the time of the greatest functional development that the greatest influence for good or evil will be wielded by the guardians of the girl. If the corset is put on her before she is fully developed, that development is interfered with, and evil results, which, in a great number of women, makes them invalids, or at any rate less useful. The floating ribs are constricted, making pressure upon the liver, often leaving indentations, seen in post-mortems, displacing all the abdominal and pelvic viscera. Dr. R. L. Dickinson, of Brooklyn, N. Y., says the pelvic floor is bulged downward one-third of an inch by tight lacing. The effect on the thoracic organs is generally less marked than on the abdominal and pelvic, but it is bad. Thoracic breathing, instead of thoracic and abdominal, is due to the corset. The capacity for expansion of the chest is diminished one-fifth. The stiff, unyielding stays hold the body stiff and straight, when it should be supple and pliant; the numerous joints of the spinal column show that nature did not intend the body to be rigid. The muscles of the trunk become weakened from non-use. Frequently when we advise a woman to leave off her corset, she exclaims, Impossible! I feel like I was falling to pieces! I can't sit up!" This is a proof that she should leave it off and the muscle be strengthened by proper exercise.

The heavy unsupported skirts, dragging on the hips and abdomen, are very injurious. The evil consequences are only a little less than those arising from the corset. The clothing should all be supported from the shoulder; if the

corset is not worn, the bands are made tight to keep them in place; supported from the shoulder this is obviated.

It has been said that the custom of wearing the pantaloons tightly buttoned around the waist was so injurious to the hardy Russian soldiers that a law was enacted compelling them to wear suspenders.

Little need be said about high-heeled shoes, as fashion has put them aside for the common-sense and spring-heeled. Many aches and pains can be laid to high heels, distorting the body relations.

The clothing should be as light as consistent with warmth. With the heart, lungs and digestive organs compressed and displaced, health is impossible. Attention to this matter of clothing alone would, I believe, work a reform in woman's health as nothing else has done.

From the twelfth to the sixteenth year is the most critical period of a girl's life; it is then that the greatest change takes place in her form and constitution; it is then that external forces are most brought to bear on her; it is then that she most requires freedom of heart, lungs, digestive organs, nerves and muscles. Nerve force is at a high tension and should be guided to the development of those organs which until now have been in an infantile state. Instead of binding her into tight clothing, let her be as free as the birds of the air. Give her bone, muscle and viscera an opportunity to develop.

At this age, when this change is taking place, when the girl is passing into womanhood, she is sent to a boarding-school. Her studies engage her time and energy; her mental culture is carried on at the expense of her physical—there is no nerve force left to complete this development. The growth of the pelvic organs become arrested, deformities and displacements occur, menstrua-

tion is delayed or made irregular and painful; nervous symptoms develop, and a physical wreck is often the result. There are few physicians who have not been called to treat patients with the following history: A girl 15 or 16 years old; menses appeared a few times; was sent to a boarding school; in a short time the menstruation ceased; became nervous; had headache frequently; slept poorly; felt worn-out and tired; lost color; became of a greenish ghastly hue; appeared bloated; blood deficient in hæmatocytes. What is the trouble? Chlorosis. The cause? There is something wrong with the sympathetic nervous system; growth is arrested; the pelvic organs cease to perform their functions. Months of treatment will be required to restore the girl to health. Of course it is not always the school girl who suffers thus, but any girl at this age is liable to this trouble if the emotions are long continued unpleasantly excited, as great grief, great fear suddenly excited, depressing surroundings, nostalgia, excessive mental labor, deprivation of pure air, exercise and light. I have seen the disease most frequently in school girls and factory girls whose surroundings were miserable, and who work all day in close, dirty rooms, with no exercise except to hurry to their meals and back, with no mental diversions whatever.

There should be a law forbidding children under 15 years of age to work in factories. Girls should not be sent to boarding schools until they are fully developed and their functions are thoroughly established. Too many of our schools are like machines. All classes of girls are treated alike—the delicate striving with the strong. The delicate girl has an indifference to physical effort, and finds that for the time her weakness of body does not interfere with her brain work; she sticks closer and closer

to her studies and shrinks more and more from physical exercise. There is no doubt as to the result.

Give not only these delicate girls, but all girls, exercise which will ensure strong and shapely limbs, chests deep, full and strong, which will strengthen the muscles of the back and abdomen. Begin these exercises mildly at first, progressing gradually, correcting each fault and carrying on this development not only through the school days, but through life. The process of breaking down and building up goes on day by day, hence this training should be daily. Let this school-days' training be done under a qualified teacher and the benefits will be felt, not by the present generation only, but by their descendants also.

These principles may be applied to women later in life who have not properly developed bodies. Much can be done to strengthen weak parts, to straighten crooked spines and stooped shoulders.

This matter of physical education should not be delayed. It should be compulsory in every school. If the teachers do not know the exercises, they should learn them. There are in this country gymnasiums where teachers in this important branch of education are taught, such as the Fifth Avenue Gymnasium, in New York, in which Dr. Sargent works. He is a strict disciplinarian and his pupils are not permitted to take the exercises as they please, as is done in the most of our schools. Such teachers as Dr. Sargent would do a great work towards the physical development of the race, and many young physicians would do well to enter into this work in their community. In London the public schools have a superintendent of physical education appointed by the school board.

There are several systems of physical culture. The Swedish system is becoming quite popular. It was first formally used in 1813 in a State institution in Stockholm. The part of it now used in educational institutions is called pedagogical or educational gymnastics. From the endeavors to benefit those who were below the average health, what is called medical gymnastics arose. The orthopædic surgeons, neurologists and gynecologists have introduced it to some extent in medical practice.

This system proceeds upon the theory that, with the proper development of the fundamental functions (those of the heart and lungs), the development of the muscles must necessarily follow.

The Delsarte school of physical culture has its recommendations. By this system almost every muscle in the body can be exercised. One of the best exercises is the swinging of the Indian clubs—all the muscles of the upper extremity with those of the back and chest are brought into use by the different evolutions gone through with in their use. These simple exercises with Indian clubs or dumb bells, practiced 15 minutes twice a day will in a short time show favorable results.

Walking is one of the best and simplest of exercises at our command. All these exercises must be done with a purpose to be gained.

We should not neglect to see that there is plenty of fresh air given—500 600 cubic feet of air to each person. Ventilation is thought little of, especially among the poorer classes, where they sleep in crowded apartments and go out of doors for fresh air, dreading *night* air as if it were poisonous.

I am anxious to see the time come when physical culture will be considered as much a branch of education as history or mathematics, and it lies with physicians to make it so. It is our duty to present this subject, in all its phases, to our patrons, and have it introduced into all schools as a special branch of education.

DISCUSSION.

Dr. Jones thought that a vote of thanks was due the author for the painstaking preparation shown in the paper. He said that she had touched the keynote when she selected physical training for her subject, and especially the training of her own sex. He spoke of the need of a steady hand to guide a girl just entering womanhood, when the functional activities begin to assert themselves. She needs plenty of exercise and freedom of movement. Her body must not be so restricted that the vital organs cannot perform their functions.

PTOMAINE POISONING AND GASTRO-INTESTINAL ANTISEPSIS.

By J. R. IRWIN, M.D., Croft, N. C.

(Read before the North Carolina Medical Society, May 15th, 1894.)

The title of this paper (Ptomaine Poisoning and Gastro-Intestinal Antisepsis) may savor somewhat of the

"Levator Labii Superioris Aleque Nasi" style, but with the difference, the latter term is simply a name for a small, trivial

muscle of the face, and the former expresses a subject in medicine than which there is none more important and none demands more serious study.

Reports, not only in the medical journals, but also in the newspapers, of instances where several members of a family or a number of individuals at some feast became suddenly and simultaneously ill, awakened professional interest in an endeavor to discover the cause. The pathological chemist and bacteriologist have elucidated this subject to a considerable extent, and through the investigations of such men as Selmi, Pasteur, Bouchard and our own countryman, Victor Vaughn, the causes of such cases have been traced to poisonous ptomaines, which, according to Gould's definition, is "a class of nitrogenous alkaloidal bases, formed during the putrefaction of organic matter," and, since putrefaction is dependent upon micro-organisms, the formation of ptomaines is also dependent upon them.

Formerly symptoms and anatomical lesions were much studied, but now the origin of disease is the absorbing theme of study and discussion. When it was discovered that germs, by their growth, produce chemical poisons, and that the absorption of these is followed by the symptoms of disease, the science of medicine made rapid strides forward in the study of the etiology of disease and in indicating a rational treatment of it, and when the poisons (ptomaines) shall have been sufficiently studied, we will be able to detect their presence in the body by their effects, just like we recognize the action of morphine by examining the pupil.

Raspail, of France, half a century ago, spoke of the microbe as the cause of influenza, and proclaimed to the world the germ theory of disease, but was laughed at and only comparatively

recently has the rôle which germs play in disease ceased to be a theory, and, as you all well know, became a fact as assuredly demonstrated as any in our science.

While physicians are not expected to be trained micro biologists, they are, or should be, willing to accept their discoveries. They have taught us that nature has settled microbes around us in as great prodigality as she has furnished the circumstances of their development and multiplication. In health they can do us no harm, but whenever our vitality is weakened our means of defense diminishes. It has been said that "nutrition is life," therefore disturbances of nutrition are antecedent to infection, and thus we can see that disease is the result of two different pathogenic processes, and a third factor may enter or become associated in inducing disease—nerve reaction.

This last factor would not in itself produce infection, but only makes infection possible by modifying nutrition so as to develop a chemical medium favorable to the cultivation of organisms. Thus we see the causes of diseases are numerous, but to attack and overcome us, they must be combined or associated. Then, if many diseases are produced by microbes, which act only by means of deterioration of the health from various pathogenic processes, the microbes are not only to be combated, but the forces of the organism are to be sustained and reinforced to resist their invasion, and the equilibrium of health maintained or restored, for diseases may be developed by the increase of normal or the production of abnormal matter.

It has been further ascertained that the peculiar poison formed will depend upon the peculiar bacterium present, nature of material acted on and condition of the individual. When we remember the multiform changes that take

place in the gastro-intestinal canal, changes of a chemical, putrefactive and fermentative nature, it is not unreasonable to suppose that these ptomaines, substances of a highly complex nature, would be formed, and when absorbed would affect the vitality of the individual.

Pasteur has isolated as many as seventeen microbes in the mouth, another investigator five species of bacteria from the normal intestinal mucus, while an enormous number of micro-organisms are known to exist in the large intestine and fæces, and it is regarded as certain that they contribute to the processes of fermentation and decomposition which go on in the alimentary canal.

Anto-intoxication, or self-poisoning, is prevented by the activity of the excretory organs, for in normal conditions there is material for poisoning, and if then material is accidentally more abundant, though the excretories are functionally free, it may yet accumulate in the blood and produce symptoms. But the organism has still another protection in the liver, which arrests or transforms toxic substances, which originate in the intestinal canal. Roger has shown by experiment that alcoholic extract of rotten meat is twice less toxic when injected into the portal vein than when introduced into the general circulation, or extracts of intestinal contents kill animals deprived of the liver much more readily and in much smaller doses. Still another protection is peristaltic action, hurrying on the intestinal contents, and thus limiting absorption.

The toxicity of intestinal matter has been proven, the intensity of which is in proportion to the multiplication of bacteria and the consequent amount of poison produced. A portion of these products is absorbed and eliminated, but if elimination is prevented by a disturbance of health, then poisoning

of the system results. The greater part is eliminated by the stools, hence the indication for the relief of constipation in all conditions and diseases.

The blood is the reservoir into which the absorbed products are poured and by which they are transported, whether they are transformed albuminoid substances, alkaloidal poisons, intestinal toxic substances arising from putrefactions, or poisons resulting from the death of cells of the tissues. That it is the carrier, is proven by the fact that they are all eliminated by organs in which they are not formed. Putrefaction is one great source of intoxication for the blood, not only that which arises from the imperfect metamorphosis of digested matter, but that which the presence of micro-organisms in the intestinal canal maintains. Here are found excellent culture media, and conditions favorable to the elaboration of poisons. The peptones are here in a tube at a constant temperature. The canal is open exteriorly, and putrefactive agents are taken in with the food; respiration carries dust loaded with bacteria into the pharynx, which are swelled. Digestion could never go on normally except for the juice the stomach secretes, which is opposed to fermentation. But it only feebly opposes it in the small intestine or the large; thus we find them capable of passing the products of putrefaction into the blood, and these putrid substances are toxic.

Anto-intoxication accounts for many of the diseases we daily meet. Brunton is of the opinion that the condition which we term "biliousness," and which is most likely to occur in those who eat largely of proteids, is due to the formation of poisonous alkaloids, and calomel, the old time-honored remedy in these conditions, removes the morbid condition of the mucous membrane of the

stomach by its local action due to its sedative and antiseptic effects, and prevents or lessens the poisoning of the system by its eliminative action. It is also claimed by some that ordinary colds are best explained by the supposition that certain effete matters, which are normally excreted by the skin are retained. This is borne out by the effects on the nervous system, and the fact that the only successful methods of treatment are essentially eliminative. Summer diarrhœa in children is due to a fermentative principle of "septic yeast," as Holt expresses it, which, with the heat of summer, together with improper diet and surroundings, will initiate the disease, and the administration of antiseptic remedies has superseded the old routine practice of administering astringents and opiates. Many other diseases that admit of this explanation might be mentioned in this connection, but I hurry on to treatment.

Now, in regard to the treatment of diseases produced by the presence of micro-organisms, and the poisons resulting from their multiplication in the gastro-intestinal canal. The treatment consists in attempts to destroy these, which have already found lodgment within the body, or, failing in this, to antagonize the effects of the poison and to maintain life until the germ, weakened by successive generations of growth, or poisoned by its own products, ceases to manifest its ill-effects and terminates by self-limitation. Much has been said and written in regard to antisepsis and antiseptics, more especially in connection with the treatment of wounds, accidental and surgical. In the ever-widening knowledge of our art, the relationship to, and the inter-blending of medicine and surgery become more intimate. While it is held in belief that no competent surgeon would refuse to grant

suffering humanity everywhere the benefits arising from antiseptic surgery, no physician should refuse or deny his patients the benefits of internal or gastro-intestinal antiseptic treatment. Surgeons are in the advance of physicians in realizing the meaning of the word cleanliness, and in being able to make the practical application, to the great benefit of their patients.

If the rôle germs play in disease is no longer a disputed fact, then the treatment of the diseases produced by them becomes more rational, and should be attended with better results, and no one who studies the therapeutics of fifteen or twenty years ago, can doubt the reality of an extraordinary improvement.

If we are to make cleanliness an important factor in our treatment of these diseases of gastro-intestinal origin, we must commence our antiseptic treatment in the mouth. The saliva is mixed with other fluids coming from without, those regurgitated into it from below, and the secretions from mucus and associated glands, together with particles of food, cast-off epithelial cells and specimens of all the pathogenic microbes; so that the indication here is plain for the frequent use of antiseptic washes, that may also be used as gargles. By this means, too often not employed at all in the oral cavity, the introduction of bacteria, unhealthy mucus and sordes into the stomach is limited.

The stomach constitutes a barrier to the invasion of microbes, owing to the antiseptic effect of the gastric juice. But if the gastric juice does not contain the normal amount and proper quality of hydrochloric acid, upon which its antiseptic action depends, trouble ensues, which must be counteracted by antiseptic treatment. The physiological importance of the stomach will be realized if we remember that it introduces

into the organism all the material, solid and liquid, except oxygen.

As the microbes that swarm into the intestine must have reached it through the stomach, antisepsis of this viscus must be practiced. If there is also retention and stasis of material in the stomach in which fermentations may occur, mechanical means may be employed, as vomiting and washing out the stomach. The old treatment, vomiting and purging, was a real cleansing of the tube, and an effectual one, in the robust constitutions of former days. Lavage is a means of obtaining or assisting the antiseptic treatment of the stomach, too little appreciated and infrequently used. It removes the mucus which assists fermentation, and the remains of previous digestions, which are perhaps undergoing putrefaction, and if there is inflammation of the gastric mucous membrane and hot water is used, it relieves it. The method that will accomplish these most safely, quickly and pleasantly, is undoubtedly best. Water is the universal solvent and cleansing agent, and heat is nature's antiseptic and germicide. Then what more rational than the free use of hot water as a detergent and cleansing agent for the stomach? The mucous membrane of the stomach is not well supplied with sentient nerves like the skin, and will tolerate a degree of heat, without discomfort, that would be unbearable to the skin. It is often advantageous to incorporate in the water some one of the well-known chemical antiseptics or germicides. The operation is simple and may be done in case of infants, Dr. Seibert, of New York, having washed out the stomach of his own child, three days old, successfully, and with the best of results. Sometimes the physician may meet with opposition to this treatment in young children on the part of the mother, but

persuasion, firmness and explanation of the expected results usually obtain her consent.

Intestinal Antisepsis.—Usually a simultaneous gastric and intestinal antisepsis is aimed at, yet that of the intestine is decidedly the most important, for it is here that self-poisoning mostly occurs, not only by the toxic products brought there by the secretions, but also by those formed there. Here the mechanical means already mentioned, purgation and washing, is of undoubted benefit, and in the irrigation of the intestine plain boiled or medicated waters may be used, as in the treatment of the stomach.

Very little has been said in regard to the particular remedies. They are very numerous, and some practitioners prefer one, some another. Naphthol is considered by Bouchard the best antiseptic in gastric troubles. Its action begins in the stomach and continues in the intestine, and is therefore a gastro-intestinal antiseptic. It is not modified by the gastric juice. When it reaches the intestine it breaks up into naphthol, etc., and benzoic acid, and is not contra-indicated in diseases of the liver or kidneys like betol, which contains salicylic acid, and is poisonous in these conditions. It may be given in $7\frac{1}{2}$ gr. doses, frequently repeated. Where there is diarrhoea, salicylate of bismuth may be added if no contra-indication to the salicylic acid exists.

While the internal antiseptic treatment promises and has accomplished so much, it should be supplemented according to indications by other remedies. The patient cannot be ignored in the case, or the dead germs and dead patient will be buried together. This prostration, due to exhaustion and depression by poisoning of the nerve-centres, is best met by strychnine, which is almost

a specific for it. By its use the circulation and innervation are strengthened and vitality economized, and the patient may be tided over the critical period. It does not interfere with other drugs that may be employed to combat other symptoms, such as fever, etc. If profuse perspiration occurs, also tending to further exhaustion of the patient, atropine may be given in combination with strychnine, which will check the profuse sweating and also allay the irritability of the central nervous system. For these conditions, from a physiological and therapeutical standpoint, these remedies are indicated.

DISCUSSION.

Dr. Booth said that, although a great deal of good was derived from hearing the papers read, yet much more was lost by not discussing them. The object of having the papers read was to furnish subjects for discussion. He said that there must be two sets of circumstances before these diseases can develop—the first, the presence of these organisms, and the other, suitable soil for their development (a lowered vitality of the system). But he said that this was not always the case, and told an instance of the physician, wife and children, all being stricken down simultaneously from eating ice-cream which had been left over from the day before. All the members were of healthy constitutions. He deprecated the practice of those who permitted meats to become tainted before being eaten.

Dr. Payne congratulated the author upon the valuable paper. He said that it must be full of meaning to any one as they become versed in the study of germs. A great many diseases originate in our own bodies. He believed that many cases of chlorosis are caused

by germ infection of the alimentary canal, resulting from constipation. The difficulty seemed to be the inability to obtain an antiseptic condition. He had often heard it asserted that it is no trouble to wash out a baby's stomach, and that a tube can easily be passed up in the colon; but it gave him great difficulty, and he wanted to know why.

Dr. Faison had had much of the same trouble as Dr. Payne. Even after introducing the water into the stomach he had not met with the expected results. His plan was to try to disinfect everything that goes into the stomach, to get rid of the germs by purging the bowels with small doses of calomel. He regarded these alimentary inflammations as the starting point of one of the most serious diseases of childhood—rickets. Not only should the physician hasten to relieve the trouble at that time, but he should endeavor to prevent the occurrence of rickets. He withdrew all nourishment for a few hours and used plenty of pure water.

Dr. Gibbon said that his experience though very limited, in regard to the irrigation of the intestine both in adults and in children had been that it is a decided benefit. He told a case of a child about two years old who was suffering with a violent attack of dysentery. The actions were about twenty or thirty a day. Rather late in the disease he irrigated the intestines, and after the irrigation the child did not have an action in four hours. He said that other cases could be given in which decided benefits were shown from the use of this practice. By irrigation of the intestines the fermented material is removed, and then, by rendering everything that goes into the stomach antiseptic, the case may be relieved.

THE PREVAILING FEVERS OF BARNWELL COUNTY, SOUTH CAROLINA.

BY E. L. PATTERSON, M.D., Barnwell, S. C.

(Read before the South Carolina Medical Association, April 25th, 1894.)

We have a continued form of fever during our summer and fall months, lasting from seven to twenty-one days, and in rare instances twenty-eight and even sixty days. Invasion is sometimes gradual, but frequently it begins with a chill, followed by a temperature of 103° F. I observe that when the invasion is gradual the fever terminates on the seventh or fourteenth day, but when the temperature is high in the beginning, the fevers are more protracted.

Quite a difference of opinion exists among the physicians as to this form of fever—about one-third of the physicians in the county term it typhoid fever, while the remainder class it as simple continued, malarial remittent, pernicious malarial, as the case may be. The prominent symptoms of typhoid fever, namely, hebitude, delirium, temperature curve and deafness, are absent; and no physician in the county has ever observed in these fevers the characteristic rose spots.

At a meeting of the Barnwell County Medical Association in March, 1892, we had for discussion the fever under consideration. It was my purpose to report 60 cases of fever, with no deaths, giving clinical history of same; but, on account of illness in my family and the subsequent death of my father, I was deterred from doing so. I have had since a great many cases of the same form of fever, and have had ample opportunities for further study and investigation.

It is well, before proceeding further, to consider the geographic situation of our county and to determine by our

surroundings what form of fever would naturally exist. On the west border of the county we have the Savannah river, and on the East the Edisto; both of these rivers have dense swamps interspersed by sloughs; various large streams traverse the county, all of which are surrounded by dense swamps; besides there are numerous smaller streams, that are utilized for mill purposes, making in every neighborhood a mill-pond. So it is readily observed that we have a most favorable soil for malarial fevers.

In most malarial sections we have the same continued fever, but a greater tendency to assume the hemorrhagic form.

At the March (1892) meeting of the Barnwell County Medical Association, half of the physicians in the county, by request, reported cases of the fever under discussion, and the number reported was 452. Two hundred and twenty-two of this number were reported as typhoid, while the remaining 230 cases were reported as continued, etc.

It is evident that the half of the physicians in the county who did not report, do not regard these fevers as typhoid, and therefore did not report.

A strong objection to the term typhoid exists, as it designates a group of symptoms that may characterize any severe acute disease—a term that has given rise to endless confusion of thought and vagueness of description.

The term enteric fever proposed by the late Professor George B. Wood, possesses the advantage of designating, and at the same time refers to, the constant primary lesion, and was adopted in the

"Nomenclature of Diseases," in 1869, by the London College of Physicians; therefore, those of us who desire may, with correctness, adhere to this term.

In considering the subject of typhoid fever, it must be remembered that we have a group of symptoms, and, while it is not essential that all of the symptoms should be present in a given case, yet we have symptoms which characterize this fever, that are seldom absent—among them, perhaps, the rose spots and the temperature curve, are the most constant. It has been stated that a few of the Charleston physicians term the fevers that exist here typhoid, and, in defence of their theory, claim that the rose spots do not appear in the tropics and semi-tropics. Dr. Bemmis, of New Orleans, La. ("Pepper's System," Vol. I., page 615), reports a case of typhomalarial fever, preceded by chills, and a history of malaria, in which there were several crops of the rose spots, with many of the other symptoms of typhoid fever present. New Orleans is far south of this, and corresponds to about the same latitude as that of Jacksonville, Fla. Dr. R. C. Kirkland saw in Charleston a typical case of typhoid fever, rose spots present, and a post-mortem examination revealed the characteristic intestinal lesion. "Murchison states that in 5,988 cases of typhoid fever admitted into the London Fever Hospital, 4,606 had the characteristic rose spots, and that it would probably have been observed in some of the others if it had been properly looked for. Wood says he has seldom met with a case in which it was absent." ("Pepper's System," Vol. I., p. 273.)

I think I have demonstrated clearly that the rose spots can exist in this latitude, and to ignore two of the most diagnostic symptoms that characterize so grave a disease as typhoid fever, is

indeed like "the play of Hamlet with Hamlet left out."

In making an investigation of this subject, I find several old physicians in this county who have had typhoid fever outbreaks, and they are among the oldest and most highly respected physicians in the State.

Dr. N. F. Kirkland, Sr., in 1857, while practicing in Beaufort county, near the Savannah river, had an outbreak of typhoid fever, which occurred among the negroes. This section at the time was densely populated by negro slaves, whose houses for looks, as well as convenience, were arranged in rows, and very close together, forming, as it were, villages; it is readily observed that just in this locality and under such circumstances the soil was most favorable; there was no railroad at the time in that portion of the State, and the Savannah river, which connected Savannah and Augusta, afforded the only means of travel and transportation; this was at a period when sanitary science was almost unknown, and transmission through milk and water of this fearful disease had not been discovered, and unquestionably typhoid fever played an important rôle in these cities. It is quite certain that some typhoid fever patient found his way to this section and thus caused this outbreak, which extended to the whites also. Here Dr. Kirkland observed the rose spots and other symptoms which characterize this disease, and had the opportunity of studying the intestinal lesions isolated by Louis and others, of France, a little more than twenty years before. Dr. W. T. Breland had an outbreak at the same time and near the same locality, and observed the same symptoms as those described by Dr. Kirkland.

In newly settled countries malarial fevers are common, and constitute the

only form of fever; as the lands are cleared and drained, malarial fevers disappear; as the country becomes thickly populated, and towns and villages spring up, typhoid fever makes its appearance. Increase of population, neglect of sanitary laws in the building of towns and the construction of sewers, with their house connections, favor the occurrence of typhoid fever.

In conclusion, I will say that we have had no special outbreak of fever in this county since 1857, and ask, Is the swampy malarial condition of this region responsible for our fevers? or is it our water supply contaminated by the germs of typhoid fever?

I neglected saying that the typhoid fever outbreak in 1857 (alluded to) lasted for four years.

DISCUSSION.

Dr. L. C. Stephenson said the object of the paper, as he understood it, was to reconcile a difference as to the nomen-

clature of the fever referred to, many physicians calling it typhoid, others contending that, in the absence of rose-colored spots, intestinal lesions and other prominent typical symptoms, the term "typhoid" was a misnomer. He preferred to name it simple continued, after the books. He differed, however, from some of the authors who claim for it malarial origin, as the quinine treatment failed utterly to abort it, or in any way to control it.

Dr. Mayer said one very important advantage which the cold pack has over the cold bath is, that it can be given to a patient who has had an intestinal hæmorrhage, and in many instances this reduces them to such a state of weakness that the exertion necessary to give a bath must prove fatal. It very often occurs, too, that patients with a very high temperature and so very weak that the fatigue of a bath would be fatal, can be saved by the cold pack, properly given.

REPORT ON THE PROGRESS OF SURGERY.

By O. B. MAYER, M.D., Newberry, S. C.

(Read before the South Carolina Medical Association, April 25th, 1894.)

In attempting to discharge the duty assigned me by the President of this Association—that of preparing the Report on the Progress of Surgery—I find that the reports which have been made on this subject are so complete and comprehensive that little is left for me to report at this meeting, unless I should be guilty of repetition.

Progress in the various branches of science seems to follow a general law—that is, a period of progress followed by one of apparent stasis. All the great

discoveries that have been made, from the telescope in astronomy, to steam in mechanics, were followed by a period of apparent lack of progress. This is due to the fact that the newly discovered truth is applicable; and when it is fully established and adopted, the march of progress is very soon begun again.

I think you will agree with me in the statement that the general adoption of any newly discovered truth, by the whole profession, is as great professional progress as its discovery was

a scientific advancement. The invention of the obstetrical forceps by the Chamberlains was a great one, but as the superstition and prejudice of the people and the profession of that day and time declared against their use, the full extent of their use and blessings could not be realized until they had been generally adopted. This adoption was as great professional progress as their discovery had been a scientific advancement. Science has not discovered any anæsthetic agent comparable to ether or chloroform, but the profession has made much progress in the use of them. The deaths that have followed the administration of chloroform and ether have caused greater care and discrimination in their use, especially since it has been discovered that ether is dangerous in those cases where kidney disease exists. In brain surgery, too, it has been found that chloroform is better, as it is less frequently followed by vomiting, as well as the fact that hemorrhage is less in the cases in which it is used. I desire to call your attention to the progress which surgery as an art has made quite recently in intestinal surgery and in amputation at the hip-joint. I am glad to be able to say that in both instances the progress is due to American surgeons.

I wish to emphasize the fact in advance that the progress which I am about to speak of is characterized by simplicity that is so great that these operations, which, until quite recently, were so difficult that none but skilled and experienced surgeons could hope to have much success, are now made so simple and easy that any surgeon can expect good results. This is real progress.

The nineteenth century does not possess any surgical triumph equal to the advancement in intestinal surgery—wounds that were formerly so frequently

fatal that none were expected to recover from them, are now treated successfully, and pathological conditions that were considered hopeless, are now cured by the efficiency of modern surgery. It is very interesting, indeed, to study the improvements in surgical devices for the reparation of intestinal injuries or for the removal of pathological conditions.

Since the establishment of our illustrious Kinloch's wisdom in opening the abdominal cavity and repairing intestinal wounds, such aids as decalcified bone plates, catgut mats and other means, have been devised by surgical art to either facilitate the operation or more safely secure parts that are intended to adhere. It is to the device known as the Murphy Button that I wish to call your attention as one of the greatest that has yet been devised, for anastomoses or end-to-end approximations of intestine. The following extract from Dr. Murphy's writings are quoted as they are very clear and expressive :

"The question above all others on which the profession are divided are : What are the best means and methods of producing agglutination of surfaces and preventing contraction at the point of adhesion? If means can be devised to hold the surfaces in contact, and while in contact to produce a speedy and permanent adhesion of the surfaces, to keep an opening sufficiently large for the free passage of intestinal contents, to produce as a result a cicatrix that will not contract to any great extent and by the contraction produce complete or partial obstruction, we will have overcome a great barrier that remains between us and ideal success in intestinal surgery.

"To overcome these obstacles, and thus lessen the risk to the life of the patient, I have devised a mechanical

means to dispense with the need of sutures, the necessity of invagination, the possibility of non-apposition, the danger of sloughing through the disks, the too rapid digestion of the catgut, the almost insurmountable difficulties of technique operation, the prolonged and fatal exposure of the abdominal contents and the protracted anæsthesia."

This device Dr. Murphy calls the anastomosis button, and claims for it these advantages: "It retains its position automatically; it is entirely independent of sutures; it produces a pressure atrophy and adhesion of surface at the line of atrophy; it insures a perfect apposition of surfaces without the danger of displacement; it is applicable to the lateral as well as to the end-to-end approximation; it produces a linear cicatrix, and thus insures a minimum of contraction, and in the extreme simplicity of its technique, which makes it a specially safe instrument in the hands of the every-day practitioner, as well as the more dextrous specialist." The method of using the button is as follows: A purse-string suture is introduced into the bowel opposite its mesentery and an incision into the bowel made within the suture—a similar suture is made in the stomach, or intestine, or gall-bladder, whichever it is intended to form an anastomosis with, and a similar incision made in it. One part of the button is introduced into each incision, and the purse-string suture tightened until the parts are properly gathered around the button, when it is sufficiently clasped to approximate the peritoneal surfaces tight enough to insure atrophy and adhesion. In the end-to-end approximation the following care is to be taken: In introducing the purse-string suture, the suture is to be commenced in the bowel at a point opposite its mesentery and pass in and out around the

cut end of the bowel. When the mesentery is reached, the suture is made to encircle it, so that when the suture is tightened both edges of its peritoneum will be properly brought together. The suture is then continued as before until it reaches the point where it was commenced. The button is then applied in the same manner as in lateral approximation.

The portion of bowel contained within the clasp of the button being deprived of any blood supply soon dies, and the button becomes detached from the living part of the bowel where adhesion has taken place, and is passed along the intestine until it makes its exodus.

Amputation at the hip-joint has always been a very fatal operation. In pathological conditions the fatality is about 42 per cent., while in military surgery it reaches the fearful rate of 98 per cent. It could scarcely be more fatal. While it is true that nearly one-fourth of the body is removed by this operation, yet there are no vital parts endangered. It has been discreditable to surgery that this operation has been so fatal. The causes of death from this operation are hemorrhage, septicæmia and shock. There has been no progress made in the treatment of shock, nor can there be any until its cause is intelligently understood. Septicæmia, however, is treated with success, as its cause is known. There can be no doubt that the fatality of this operation is largely due to its loss of blood. The various devices to prevent hemorrhage which surgery has devised have not been successful. The tourniquets of Pancort, Esmarch, Lister and Brandis, as well as the intra-rectal lever, all fail to fulfill the purpose for which they were designed. Trendelenburg's rod filled this purpose, as far as it went, more perfectly than the tourniquets, but it only prevented

hemorrhage from the external iliac artery and its branches, and did not prevent the loss of blood from the internal iliac. The method of Wyeth completely prevents the loss of blood by a simple procedure, one that is so easily done that it is within the reach of all surgeons of any degree of experience. The method of doing the amputation is described as follows by Dr. Wyeth :

"With the patient in the usual position for doing a hip-joint amputation, the limb should be emptied of blood by elevation of the foot and lowering of the trunk, or by the Esmarch bandage applied from the toes to the trunk. Under certain conditions the bandage can be only partially, or may be not at all applied. When a tumor exists, or when septic infiltration is present, pressure should only be exercised not quite to the diseased portion for fear of driving septic matter into the vessels. After injuries attended with great destruction, crushing or pulpification, of course the Esmarch bandage is not applicable, and one must trust to elevation to save as much blood as possible.

"While the member is elevated, or before the bandage is removed, the rubber tubing is applied. The object of this constriction, and it is the chief point in the method) is the absolute occlusion of every vessel at the level of the hip-joint safely above the field of the operation. To prevent any possibility of the tourniquet slipping, I employ two large mattress needles or skewers about 3-16 of an inch in diameter, about 10 inches long, one of which is introduced about one inch below the anterior superior spine of the ilium and slightly to the right side of this prominence, and is made to transverse superficially the muscles and fascia on the outer side of the hip, coming out on a level with, and about three inches

from the point of entrance. The point of the second needle is made to enter one inch below the level of the crotch internally to the saphenous opening, and, passing squarely through the adductors, comes out an inch below the tuber ischii. The points are at once shielded by bits of cork, to prevent injury to the hands of the operator. No vessels are endangered by these skewers. A piece of strong white rubber tubing $\frac{1}{2}$ an inch in diameter and long enough when tightened in position to go five or six times around the thigh, is now wound very tightly around and above the fixation needles and tied. If the bandage has been employed it is now removed. About six inches below the tourniquet a circular incision is made, and this is joined by a longitudinal incision, commencing at the tourniquet and passing over the trochanter major. A cuff that includes the subcutaneous tissue down to the deep fascia is dissected off to near the level of the trochanter minor. At about the level of the trochanter minor the remaining soft parts, together with the vessels, are divided down to the bone by a circular cut, and in order to facilitate the search for the vessels, the soft parts are rapidly removed from the femur for several inches below the line of the divided muscles. At this stage of the operation the larger vessels, veins as well as the arteries, should be tied with good-sized catgut. As suggested by Professor Murdoch, of Pittsburg, I now leave the entire limb intact and use the full length of the limb as a lever in dislodging the head of the bone. When the larger and easily recognized vessels have been secured, the muscular attachments to the upper extremity of the bone are lifted off with scissors or knife, keeping along very close to the bone, holding the soft parts away, the capsular ligament is exposed and divided in its

circumference. Forcible elevation, abduction and adduction of the thigh permit the entrance of air into the socket and at the same time rupture the ligamentum teres, and the disarticulation is thus easily and rapidly affected.

"Properly conducted up to this time, not a drop of blood has been lost except that which was in the limb below the constrictor when this was applied. If now the tourniquet be carefully and gradually loosened, each bleeding point may be determined and the forceps supplied as required until the tube is entirely removed. Should any difficulty be encountered in the effort at enucleation, the same precaution in securing all bleeding points should be exercised in removing the tourniquet, and enucleation completed with the tourniquet out of the way.

"Before concluding the consideration of the technique, I wish to emphasize a point of great importance. When, by reason of severe hemorrhage before operation, or when, from any pathologic

anæmia or condition of weakness, the operation should be rapidly completed and the small amount of blood that will be lost from capillary oozing should be saved, suturing of silkworm gut should be rapidly introduced, the wound packed with hot sterilized plain gauze, and sutures temporarily tightened for snug compression of the wounded surfaces. This packing at once controls all oozing, and can be removed in from 24 to 48 hours after reaction and the sutures finally secured.

"Without discussing statistics, I claim it safe to conclude that by the method given bleeding after hip-joint amputations is as safely and as securely controlled as for an amputation of the thigh lower down. In no single case has it failed, and it has been employed now by operators of all grades of experience."

Dr. Wyeth reports the histories of 40 cases of amputation at the hip by the foregoing method which give a death-rate of $32\frac{1}{2}$ per cent.

THE NECESSITY OF LEGISLATION FOR THE PREVENTION OF BLINDNESS IN SOUTH CAROLINA.

BY CHARLES W. KOLLOCK, M.D., Charleston, S. C.

(Read before the South Carolina Medical Association, April 25th, 1894.)

The increase of blindness in the United States has of late caused considerable discussion among medical men, and this in turn has led to the adoption of laws in three* States (Maine, New York and Rhode Island) which look towards its prevention. Dr. Lucien Howe, of Buffalo, N. Y., in 1887, first brought this matter before the American Ophthal-

mological Society, and this Society and the Medical Society of the State of New York both appointed committees to look into the subject. These committees reported the advisability of legislation "to limit the further increase of what may be considered one of the principal causes of blindness, namely, "ophthalmia neonatorum."

In 1880 there were 48,929 blind persons in this country, and in 1890, by the

*Since this paper was read one or two more States have adopted similar laws.

Porter census, 50,411—an increase of only 3.20 per cent., but there is good reason to suppose that the last census is by no means correct in the number of blind recorded. Of the 50,411 blind persons 27,983 were males, 22,458 were females, 43,351 were whites, 7,060 were colored, 41,263 were natives and 9,146 were foreigners.

Dr. Howe shows that a large percentage of the blindness was due to neglect in childhood—to ophthalmia neonatorum. Fully 5,000 of the blind in the United States are so from this disease, and if the inmates of asylums were carefully examined, it would prove that at least 18 per cent. had lost their vision from this cause.

In a paper on *Purulent Ophthalmia*, read by me at the last meeting of this Association, it was proved that from the present knowledge this disease is largely preventable, and as physicians it should always be our earnest desire to *prevent* disease.

Unfortunately, in our own State, as well as in many others, women are quite as often, if not oftener, delivered by mid-wives as by physicians. These mid-wives are generally of the lower and more ignorant class, and not infrequently an infant is brought to a physician with the corneæ destroyed by ulceration, no physician having been previously consulted, and the only treatment being mother's milk, or some equally absurd and insufficient remedy. For the present and for many years to come we cannot hope to obtain any improvement from educating this class, but more can be accomplished by severe and summary punishment for neglect than by any other means. Therefore, I would move that a committee be appointed to go before the next General Assembly and

present the following for their consideration:

Section 1. Should one or both eyes of an infant become reddened or inflamed at any time after birth, it shall be the duty of the mid-wife, nurse or person having charge of said infant to report the condition of the eyes at once to some legally qualified practitioner of medicine of the city, town or township in which the parents of the infant reside.

Section 2. That the Secretary of State shall cause a sufficient number of copies of this act to be printed and supply the same to health officers, whose duty it shall be to furnish a copy to each person who is known to act as mid-wife or nurse in the cities, towns and townships for which they have been appointed.

Section 3. Any failure to comply with the provisions of this act shall be punishable by a fine not to exceed one hundred dollars, or imprisonment not to exceed six months, or both.

Such legislation is especially necessary in this State, where there are so many ignorant and shiftless negroes. As it is we are obliged to support most of these people without a *quid pro quo*, and when they are blind they become in fact a dead weight upon the State.

THE TREATMENT OF DIPHTHERIA.—Dr. Poullet claims the best results from treating the false membranes by applications of a saturated solution of papain. One-half hour afterward make an application of a liquid which is composed of equal parts of Vap Sweiten's liquor and glycerin. Alternate these applications every half-hour until the disappearance of the membranes.—*Bulletin Général de Thérapeutique*.

CONSERVATIVE SURGERY OF THE HAND.

By W. F. FAISON, M.D., Jersey City, N. J.; Emergency Surgeon to St. Francis Hospital.

(Read before the Hudson County Medical Society. June 4, 1894.)

Something over a year ago, a young railroader, 23 years old, a fine specimen of physical manhood, had both of his hands ground to pieces by the wheel of a locomotive. There was no alternative but a double amputation. I assisted in the operation, and, after his uneventful recovery, I was forcibly impressed with his utter incapacity for usefulness, requiring to be fed as a babe, with a full knowledge of his surroundings, yet little more than an automaton.

Before calling attention to the treatment of injuries of the hand, it seems fit to take a rapid review of the peculiar anatomical construction of this wonderful member. In perfection and delicacy of mechanism it surpasses every handiwork devised by man.

The several short articulations of the phalanges allowing a wide range of flexion and extension, enabling it to grasp objects large and small, make it man's special means of prehension.

The enormous blood supply derived from the terminal branches of the radial and ulnar arteries, confers upon it almost unlimited reparative powers in case of injury.

On the palmar surfaces of the fingers the tendons are bound down by thick fibres extending from integument to bone; the lymphatics have a similar centripital course, and it is on this account we see the pronounced tendency of digital inflammations to penetrate tendon and bone.

The fibrous sheaths enveloping the flexors of the index, middle and ring fingers, terminate in blind cul-de-sacs

opposite the carpo-phalangeal articulations, while those of the thumb and little finger are in direct communication with the palmar bursa and forearm. Upon this arrangement is due their more serious import of suppuration, a fact long known by the laity.

Liable to many injuries on account of its exposed position, requiring peculiar surgical attention on account of its anatomical construction, and endowed by nature with almost unlimited recuperative powers in case of injury, it becomes every physician's duty to know and thoroughly carry out the best methods of treatment, to preserve in its entirety, or as much as possible, so essential a member; and he who is careless or remiss in his treatment is, to say the least, culpable.

I desire to direct attention to the conservative treatment of injuries of the hand. I do not, in this article, propose to offer anything new on the subject, but simply to bring forward and emphasize a special plan of treatment that has been before the profession for several years. I have reference to Schede's method of healing under a moist blood-clot. Within the past few years I have had quite some experience in railroad injuries, most especially injuries to the hand, owing to its exposed position and to carelessness on the part of brakemen in coupling cars. Railroad accidents on account of the great momentum by which the blows are inflicted are peculiarly grave, often causing comminution of bone and complete disorganization of the soft structures some distance

from the point of impact, the skin, on account of its great elasticity, often escaping entirely, unless as it may be punctured by a fragment of bone.

The types of injuries in which the blood-clot is made use of are those in which there is great laceration and destruction of tissue, where it is impossible to approximate the gaping surfaces, or where strangulation and death would be the inevitable result from tension should they be approximated.

Every lacerated wound should be considered infected, hence the most thorough asepsis and antisepsis should be observed. The injured member should be scrubbed with soap and hot water, washed with ether and irrigated with a one to two thousand solution of bichloride of mercury. The surgeon should of course apply the same treatment to his own hand first.

In some cases of severe mangling, where we are not certain of thorough asepsis, it is a good plan to envelop the injured membrane in hot moist dressing of corrosive sublimate solution for twelve hours before attempting to close the wound or employment of the blood-clot.

Having satisfied ourselves that the wound is surgically clean, Lister protective, previously saturated in a one to forty solution of carbolic acid, is placed over the wound only slightly overlapping its edges; over this a few layers of iodoform gauze, and the whole enveloped in an ample dressing of sublimate gauze. The protective keeps the clot moist by preventing evaporation, and the outer dressings absorb and render innocuous the surplus of blood and serum. The frequency of subsequent dressing will depend upon the amount of transudation and pain, and vary from a day to three weeks.

When the dressings are removed, the chasm will be found filled with clotted

blood, which clot should not be disturbed, but allowed to remain and become incorporated, so to speak, in the granulations. The blood-clot, by protecting tissues of a low grade of vitality, such as fascia, tendon and bone, prevents the necrosis which would otherwise take place if evaporation is allowed, no matter whether asepsis and antisepsis be carried out or not.

Blood may be considered a fluid tissue, the corpuscles being the cells and the serum the matrix, and whether it is capable of becoming organized and assisting in filling in the breach of continuity (a similar office it was once thought to perform after ligating arteries) or not, still the leucocytes in the clot serve a useful purpose in furnishing pabulum to the embryonal cells in their respective histogenetic succession.

After a thorough trial of the plan of treatment, I am fully convinced of its efficacy; but he who is not thoroughly imbued with Listerism in its every detail, but who is content to go along in a haphazard, indifferent manner, dipping the tips of his fingers in some antiseptic solution, thinking he has rendered himself surgically clean, and employing some mongrel dressing, expecting Metschnikoff's phagocytes to do what he himself should have done, to him I would most emphatically say, do not attempt this method, because the blood-clot, however useful a service it may perform, when sterile, yet is a specially fertile soil for the cultivation of pathogenic micro-organisms should they find an ingress.

Should we not see the case till inflammation has been established, then resort to hot wet dressing of sublimate solution, protected by rubber tissue to prevent evaporation; this dressing is antiseptic and the heat and moisture, by dilating the collateral circulation in the

arteries, diminishing the amount of blood in the inflamed region, will greatly lessen pain.

If, in spite of all such measures, the inflammation be gaining rapid momentum, do not resort to the time-honored filthy flax-seed emollient, a relic of the past, handed down to us by our forefathers, "embalmed in the dicta of the highest authority and consecrated by the owlish wisdom of the ancient." Such applications, by their soothing influence, are deceptive both to physician and patient. Have immediate recourse to the safest of all antiphlogistic remedies, the knife, free incisions, thorough drainage and antiseptic applications.

Many an unfortunate has sacrificed finger, hand, arm, yes, life itself, by temporizing with flax-seed, when more heroic measures were indicated.

I wish to submit short reports of three typical cases:

Case 1.—T. B., 45 years old, in latter part of February, had about one-quarter of an inch of index-finger cut off, leaving the bone entirely bare. I advised him to have enough bone removed to obtain flaps to cover it; he refused, and said he would take all risk. Under the blood-clot I succeeded in obtaining primary union. The wound was completely healed in two weeks. I was afraid the skin would ulcerate on account of the subcutaneous condition of the bone.

Three months afterward he told me he had no trouble, and was able to perform the ordinary work of a laboring man. Under the dry method, the time of healing would have been considerably longer, and the probability of necrosis developing much greater.

Case 2.—A flagman had his hand crushed between two bumpers—thumb and ring-finger had to be amputated, as they were completely pulpified; middle finger, on its palmar surface, was lacerated for two and a half inches; the bone was not fractured, but shelled out, as it were, from the soft tissues.

A prolonged bichloride bath and blood-clot enabled him to obtain a slightly stiffened, but quite useful, finger.

Case 3.—Was admitted to St. Francis Hospital ten days after receiving a severe contuso-lacerated wound of index-finger; he had been faithfully wrestling with the laity's great panacea, flax-seed; the flexor tendon was bare for two inches, and the entire finger macerated and infiltrated with pus. A free radiating incision and thorough irrigation improved the condition somewhat, but was not a perfect success by any means, due to the prolonged exposure of the tendon to the dessicating influence of the air; he refused amputation and left the hospital with a stiff finger twice its normal size—another monument to the poultice and mongrel surgical dressings.

STRYCHNINE AS A CARDIAC AND RESPIRATORY STIMULANT.—Dr. W. H. Washburn reports the case of a patient who had swallowed two ounces of chloroform with suicidal intent. The dilated pupils did not react to light; the respirations were exceedingly shallow, irregular and scarcely perceptible; and he had the weak, uncertain and irregular pulse of a dying man. One-twentieth of a grain of strychnine was injected subcutaneously and artificial respiration practised; one hour afterward 1-60 of a grain was injected. Complete recovery followed. It is believed that in strychnine, administered hypodermatically, we have a valuable remedy for the alarming symptoms which arise during surgical anæsthesia. In one instance, where recovery from chloroform anæsthesia was marked by a blanched appearance of the patient and almost imperceptible pulse, rapid improvement followed the subcutaneous injection of 1-20 gr. of strychnine.—*Therapeutic Gazette*.

Selected Papers.

THE PATHOLOGY OF PERNICIOUS ANÆMIA.

BY WILLIAM MOSER, M.D.

The anatomical changes in this condition are a little varied, and it is to be expected that writers on this subject are a little at variance. The term pernicious anæmia is a clinical designation, which does not betray the underlying morbid condition. It is not a disease *per se*, although some writers regard it as such. Its principal clinical manifestation, the profound anæmia, is dependent upon various morbid processes, the ætiology of which is by no means always clear. Malignant diseases of the internal organs, especially cancer of the stomach, plays an important part in its pathology. In fact, in the autopsies which I have seen of pernicious anæmia cancer of the stomach was the primary lesion in over half the cases. The secondary pathological effects produced by this primary lesion cannot be distinguished from those cases of so-called idiopathic pernicious anæmia, i. e., those cases in which we are unable to determine the primary lesion, the cause. The *Anchylostomum duodenale* is classed by some writers as a cause of this condition. It may be in some parts of Europe. I never saw it in Germany, although I had occasion to see fourteen autopsies of pernicious anæmia in that country. The problem which confronts us is to find the primary lesion, the cause of these cases of so-called idiopathic pernicious anæmia. Certain changes in the stomach (degeneration of gastric tubules) are regarded by some as primary. I fear these investigators are confounding cause and effect. What are some of the anatomical changes

found at autopsies? The internal organs are markedly anæmic and fatty. In all cases which I have seen fatty degeneration of the heart was present. It is often well marked on the papillary muscles, where the yellowish-white streaks of fat can be seen with the naked eye. Indeed, there is no condition which offers a better study for fatty degeneration of the heart, both macroscopically and microscopically, than does pernicious anæmia. The liver cells and the parenchyma of the kidneys are often fatty. The brain participates in the general anæmia, and we have here an opportunity to study what constitutes anæmia of the brain. I mention this because pathologists are not agreed as to what constitutes anæmia of the brain. (Edema of the lungs, which is always secondary, is not infrequent. Important changes occur in the marrow of the bones. This is best seen by making longitudinal sections through a long bone, like the femur. The marrow is red, reminding one of fœtal marrow. The fat cells are replaced by large and small granular cells, and, as Wood and Cohnheim first pointed out, nucleated red blood-corpuscles are seen in large numbers. Lymphomatous growths may at times be seen, suggesting a relationship between pseudo-leucæmia and pernicious anæmia. It is not characteristic of either condition. The spleen usually remains unchanged. The aorta and other vessels present a fatty degeneration of their intima in many cases. Hæmorrhages are common on serous surfaces and retina. The most impor-

tant changes occur in the blood. All observers are agreed that there is a marked diminution of the number of red blood corpuscles. Instead of containing about five million corpuscles to the cubic millimetre there may be only two million, one million, or even five hundred thousand. It is to this destruction of red blood cells that we owe the anæmia, the fatty changes and the deposition of iron in various organs. A fresh section of the liver, for instance, treated with sulphide of ammonium, will precipitate in the liver cells dark granules of sulphide of iron. Important chemical differences occur in the red blood-corpuscle. What these changes are will be a difficult problem to solve. The blood is unusually pale.* In pernicious anæmia the red blood-corpuscle imbibes different stains quite readily. The red blood-corpuscle ordinarily will not do this. This becomes more manifest on the living cell, and especially so of its central area. This chromatic property of the red blood-corpuscle is not peculiar to pernicious anæmia on the living cell, but will occur in other conditions and in healthy individuals. But never so readily as in this condition. Ehrlich first drew attention to the fact that quite a large number of nucleated red blood-corpuscles can be seen in the disease under discussion. But on the living cell I have since raised the question whether they are not all nucleated (*vide Medical Record*, 1893). I must confess that in some specimens I could not get a uniform staining of the central mass of protoplasm with a definite outline. And yet may not these cells have had a nucleus some time in their life history? We are not sufficiently acquainted with the life history of cells to answer that

*The megaloblasts (Ehrlich), unusually large nucleated red blood-cells, occur, but give us no clew to the underlying morbid condition.

question. Caryokinetic demonstrations on the dead cell, as Luzet has done in that rare disease known as infantile pseudo-leucæmia (Jaksch), and to which attention had been drawn by this investigator and others, for purposes of differential diagnosis, appears to me of doubtful value. Luzet and his followers regard this property of karyokinesis in infantile pseudo-leucæmia as characteristic of the disease. But is it so on the living cell? These questions are *sub judice*. Quincke first drew attention to the fact that the red blood-corpuscle in pernicious anæmia will take on various shapes, i. e., kidney shaped, pear-shaped, ring-shaped, etc. His observations have been confirmed by most observers. While it is true that it is most frequent in this condition, it is not characteristic, but occurs in other conditions. Jaksch (*Klinische Diagnostik*) has drawn attention to this fact. This poikilocytosis, as Quincke called it, is regarded by Jaksch as dependent on contractions in the cell. Friedreich and Mosler were of the same opinion. As a matter of fact this condition of poikilocytosis is nothing more nor less than part and parcel of the life history of the red blood-corpuscle—its function of amoeboid movement, which I could demonstrate time and again on the living cell, i. e., the urine (nephritic urine), where the red blood-corpuscle retains its vitality. In short, I must be at variance with most observers on this subject, because I have dealt with living cells, they have dealt with dead ones.—*New York Medical Journal*.

RIGID OS IN LABOR.—Dr. E. H. King finds that the 1-100 grain of atropine, hypodermically administered, will usually cause the complete relaxation of an unyielding os within 15 or 20 minutes.—*Kansas Medical Journal*.

THE USE OF ACETANILID IN MEDICINE AND SURGERY,

WITH SPECIAL REFERENCE TO ITS SURGICAL APPLICATIONS, INCLUDING ILLUSTRATIONS OF ITS USE IN MINOR SURGERY, AND ITS ACTION IN TWO IMPORTANT CASES INVOLVING OTHER IMPORTANT FEATURES.

By G. W. WOODS, M.D., Medical Inspector United States Navy.

Acetanilid is a synthetical compound produced by the inter-action of anilin with glacial acetic acid at a high temperature, the distillate being collected at 295 per cent., and re-crystallized from boiling water.

It appears in shining crystalline plates, in powder, colorless and odorless, having a greasy feel, is neutral to test paper, and has a feeble acrid taste. It is soluble in 31 parts of alcohol, in ether and chloroform, and its alcoholic solution permits of large dilution with water without precipitation. It melts at 113 Cent., forming a clear liquid, and is decomposed by acids and alkalies. Exposure to moisture and mixture with water does not affect its integrity.

An easy test for acetanilid is heating it with liquor potassæ and a few drops of chloroform, when a distinctive odor is developed partaking of the nature of phenyl and ethyl compounds, said to be phenylisonitrile. Another is the boiling of 6 grains with 1 drachm of acid-hydrochloric until the mixture becomes clear, and then adding 3 drachms of water with 4 drops of acid-carbolic previously dissolved in a half drachm of liq. sod. chlorinat. This produces a turbid pink solution, becoming blue on the addition of excess of ammonia.

The use of acetanilid, or antifebrin, its copy-righted title, or chemically, phenyl-acetamid, dates from 1887, when it was first brought to notice as an antipyretic, and classed therapeutically from its analogous effects on the system with

those other but recently introduced remedies, antipyrin and phenacetin.

As an antipyretic, acetanilid has sustained all that is claimed for it, and where given in moderate doses has never indicated the slightest poisonous or depressing effects even in children. Where toxic symptoms have been manifested they have followed an administration of the drug in the same manner as antipyrin, while the dose should be graded to one-third of the latter drug. It is adapted to every form of fever, the continued, enteric or malarial and eruptive, and to all inflammations associated with high temperatures, but should be carefully watched for fear of individual idiosyncrasy, and, commencing with small doses of 2 to 3 grains, be increased, if necessary, not to exceed a half a drachm daily, save where indicated to combat the more intense forms of pain.

In spasmodic affections, such as asthma, pertussis and epilepsy, as a nervine and analgesic in the worst forms of neuralgia and rheumatism, and, in fact, to all affections characterized by spasms or pain it is especially applicable; and in cerebral congestions, the delirium of fever, and even in delirium tremens it acts as a most satisfactory sedative and hypnotic.

In its effects on the temperature, its influence is manifested more slowly than antipyrin; it is diuretic and diaphoretic; and while antipyrin is a positive cerebral sedative and general depressant, acetanilid, while hypnotic, is rather a moderate

stimulant to the cerebral, muscular and vaso-motor systems.

I have thus epitomized the experience and observations of seven years in the world-wide use of this drug in medicine, deeming it unnecessary to present any clinical notes as evidence, the periodical literature of our country during this period having offered an abundance of detailed reports establishing the facts enumerated. These bear testimony of a convincing character to the usefulness of acetanilid, and demonstrate the propriety of making it a permanent addition to the drugs we should always wish to have within our reach, as necessary to us as opium and its alkaloids, and the derivations of cinchona bark.

Thus much for medicine. But acetanilid has surgical applications of even greater importance, although until recently its external use was derided, and yet its antiseptic powers were long ago recognized and it was recommended as especially applicable to the preservation of aqueous hypodermic solutions. The only surgical indorsement it had hitherto received had been from Dr. K. P. Wasilevitch, who had found it an admirable substitute for iodoform as an application to primary venereal sores, which had healed with great rapidity under its local application.

This was the status of acetanilid in surgery until less than a year ago, when a modest communication to the *Medical News* (Vol. lxiii, page 438), from Dr. Francis W. Harrell, of Gilman, Washington, announced its remarkable adaptability to the dressing of lacerated wounds. He states that he was led to use acetanilid simply from its being non-hygroscopic, and he first applied it to an extensive lacerated wound of the skin and muscles of the lower arm and fore-arm. The surfaces were cleansed with warm water and the substance ap-

plied freely, the only sensation being described as a "peppery" one and of brief duration. Within twenty-four hours the wound was examined and no pus found. Again it was dressed as at first and not disturbed for a week, when the wound was found to be completely healed.

Dr. Harrell is the Surgeon-in-Chief of Seattle Coal and Iron Company's mines, and the surgical cases coming within his cognizance are principally wounds grimed with dirt, coal or mineral dust and oil, which cannot be completely cleansed save with great difficulty; but under acetanilid healing progresses perfectly without pain, the formation of pus or poisonous effects from absorption.

Dr. Alfred Hand, of the Surgical Dispensary connected with the German Hospital, Philadelphia, Pa., reports in the *Medical News* of March 10, 1894, that in the wide experience of this establishment the results have been excellent, especially in the lacerated wounds of mechanics imbued with dirt, oil and foreign bodies; that acetanilid has completely displaced iodoform, and permits of immediate resumption of work and the saving of fingers and toes, where formerly amputated under similar conditions. Its use has been extended to all forms of ulcers, venereal sores and moist eczema.

Dr. Charles H. Castle, of Cincinnati, Ohio, Resident Physician of the Cincinnati Hospital, in the *Medical News* of March 31, 1894, records its use in over two hundred and fifty cases, including all forms of lacerated wounds, especially those of the scalp, incised and gun-shot wounds, venereal ulcers and burns. He first flushes surfaces with a 1 to 40 solution of acid. carbol. dusts with acetanilid, and covers with gauze and protective, the result being that no pus forms. With him acetanilid has entirely super-

seded iodoform, and the only objectionable feature has been a burning pain when applied to any extended granulating surface.

Another record is that of Dr. M. E. Knowles, of Hamilton, Montana, who has used acetanilid extensively in surgical veterinary practice, and found it especially adapted to the closing of fistulæ, first cleansing with peroxid of hydrogen.

My personal surgical experience with acetanilid is confined to twenty cases of lacerated wounds and operations, and the list embraces some new experiences and applications of this remedy.

After the removal of a keloid tumor from the hand, I employed acetanilid as a dressing with the result of perfect immediate comfort and rapid healing, without the formation of pus: I have found it an admirable and curative application to internal hemorrhoids and a satisfactory dressing in the form of a suppository after their removal by the Panquelin cautery; I have also employed it in solutions of dilute alcohol—acetanilid, grammes 4; alcohol, c.c. 2; aque ad. c.c. 500—in blennorrhagia, and with most satisfactory results, salol being administered at the same time, however. In a long fistulous tract of the right side of the neck, connected with a deep cervical gland, dipping down to the region of the deeper blood-vessels, I succeeded after curetting the accessible portions, in closing the sinus by means of the above injection.

I herewith offer a brief clinical history of two cases of importance illustrating the efficiency of acetanilid in aborting or controlling the formation of pus, and the manifestation of an alterative effect over a large granulating surface following an extensive burn, affected also with an intercurrent eczema—of which there was a previous

history—and incidentally its toxic effects through absorption:

Case 1—Was that of a Japanese mess attendant from the U. S. S. Alert, who received bruises of the left thigh during a typhoon near Yokohama, Japan, on August 19, 1893, while en route to San Francisco, which eventuated in phlegmonous erysipelas. He was admitted to the U. S. Naval Hospital, Mare Island, Cal., September 23, with multiple abscesses on the inner side of left thigh, and extensions from this region to the iliac crest and sacrum, with an opening of discharge in the first mentioned site; and on the inner aspect, near the groin, two sinuses leading deeply and upward to other accumulations of pus. Counter openings were made in both situations, at the most dependent portions, and on the following day another opening over the tuber ischii to relieve a posterior pocket of pus. The discharge was abundant from all these openings, and the temperature, which has been as high as 103.6, fell to 100.4. The integument was widely separated, forming large cavities, and from the openings there was estimated to be discharged daily from 200 to 400 cubic centimeters of purulent matter, necessitating two dressings each day, and thick coverings of absorbent material. Three days later another large cavity was opened, burrowing around the femoral. From this time with thorough drainage and thorough cleansing with sol. hydrg. bich., 1 to 2000, there was some improvement, a diminished discharge and contraction of cavities. with general improvement under the most careful administration of stimulants, concentrated nourishment, and appropriate anodynes to relieve the constant aching pains in the limb. The temperature fluctuated between 99 and 100.4. October 20, an increase of temperature was noted, gradually rising to 103, and October 25, an extension of suppuration was perceived towards the groin, and an incision was made in the inguino-scrotal angle, but no pus was found; on October 20, however, it forced its way into the incision and 200 c.c. was discharged. Again, the high temperature maintaining itself, a new focus was

searched for, and found in Scarpa's triangle, on November 2d, a large incision giving exit to 250 c.c., which exit was subsequently extended by another incision; just below Poupart's ligament, and a drainage-tube passed through both openings. It will thus be seen that the thigh of patient was for one-half its circumference, and extending from Poupart's ligament and the cresta ili, a series of subcutaneous abscesses penetrating the muscular septa, discharging more or less profusely, and from time to time forming new extensions. At this juncture, with no signs of permanent abatement of the existing conditions, and patient greatly prostrated, the employment of acetanilid suggested itself, and on November 9 its use was commenced. At first the sinuses and cavities were washed out with either warm solutions hydrg. bichlorid or carbolic acid, and afterward powdered acetanilid was forced through the openings. This was an awkward and unsatisfactory way of using the remedy, and yet it soon showed evidences of controlling the pus formation. On November 21st another pocket of pus was found in Scarpa's triangle, and, on probing, was found to extend into the gluteal region, where a counter opening was made, which was enlarged on the 28th, this being the last incision. On November 22d, it being demonstrated that the acetanilid was acting favorably, it was determined to find some way of testing it more thoroughly, and the alcoholic solution employed as a urethral injection was made use of. With this the cavities were thoroughly irrigated daily, and improvement commenced at once, the discharge diminishing, the pain almost annihilated, sleep refreshing, appetite ravenous, digestion excellent and strength increasing rapidly. In a month the discharge was practically annihilated, and on January 18th, 1894, the cavities were obliterated and the openings had healed without the formation of large cicatrices. There was some contraction of the skin, and slight ankylosis of the hip- and knee-joint, with the leg in a partially flexed position from the prolonged disuse of the limb and rest in bed, with the leg habitually drawn up; but this condition

is being gradually overcome without tenotomy or other operation being demanded.

Case 2—Was that of Mr. X., a native of Germany, for many years a citizen of California, and the proprietor of a brewery which he personally superintended. The interest of this case lies in the constitutional effects of acetanilid being manifested on its application to a large granulating surface, the apparent grave condition without any recognition of this fact by the patient, its alterative effect without repetition being demanded over the entire surface, and its apparent control over an inter-current eczema. The case was one in which I was called in consultation by Dr. W. D. Anderson, a prominent practitioner of Vallejo, Solano county, California, and during his illness was in sole attendance on the patient for a considerable period, Prof. A. M. Gardner, of the University of California, and Superintendent of the State Insane Asylum at Napa, being the primary consultant.

On May 23d, 1893, Mr. X. was scalded by his left leg slipping into a tub containing a boiling infusion of hops, the scald extending from nine inches above the knee to the ankle, the foot being saved by a closely-fitting congress shoe of thick leather. Brewer's yeast was applied as soon as the clothing could be cut from the limb, and after medical assistance had been summoned, carron oil was substituted; morphia was administered and patient kept under its influence for a prolonged period. The scald was beyond the second degree, and the result was a sloughing of the entire cutaneous surface within the area indicated, involving the entire substance of the true skin. Profuse suppuration followed, and it was variously treated with iodoform, aristol, hydrogen peroxid and hydro naphthol, each application acting well for a time and then losing its efficacy.

On July 15, the surface being covered with healthy granulations, it was determined to employ skin-grafting, and, within a period of eight days, 2,280 grafts were inserted by Drs. Anderson and Gardner, 40 persons contributing the grafts, not one of them having a

history of either venereal or eruptive disease. These grafts were obtained from the skin covering the biceps, which was cleansed with soap and afterward with peroxid of hydrogen. They were raised with mouse-tooth forceps, severed with curved scissors, averaged 50 mm. by 16 mm. in size, and placed immediately upon the surface previously cleansed with hydrogen peroxid. They speedily attached themselves, vitally, and the leg soon demonstrated its new covering, especially on the calf, where the current of pus had swept and crowded the grafts, but islands appeared everywhere. The progress of repair went on rapidly, and on September 6th, when Dr. Anderson, becoming seriously ill, had to absent himself from the case, the surface was so nearly healed that the patient was expected to be out in a week.

About this time eczema appeared, and just subsequent to this date developed rapidly, when the newly-developed tissue began to break down, and the patient's wife becoming greatly alarmed, treated the leg to a coating of hot mutton tallow, an old German remedy. It was evidently applied at too high a temperature—the result was the separation of nearly all the imperfectly vitalized new tissue, save on the central posterior aspect of the limb, but here the grafts had formed a firmer covering, and the islands, more anteriorly still persisted. The suppuration again became abundant, forcing up the thick coating of tallow in little craters, which were found to be the seat of eczematous pustules, and the whole tallowy coating being removed three-fourths of the surface, was found to be apparently returned to its condition before the grafting, with the added complication of an extensive eczema.

It seemed as though the work had all to be done over again, for we did not then hope for the persistence of the grafts, and the development of the pus in such abundance, with the eruptive complication, was discouraging. Hydrionic acid had been prescribed at the earliest appearance of the eczema by Dr. Anderson, who had observed on the other limb evidences of its former exist-

ence, and now specific, alterative and tonic remedies were prescribed with a view to influencing the eruption more decidedly. Locally the changes were rung for some time on the old applications, embracing bismuth subnit., sodii bicarb., iodoform, aristol, peroxid of hydrogen, hydro-naphthol, and lastly, pyoktannin, without any appreciable improvement. In the end I proposed the use of acetanilid, stating my experience in its use as aborting suppuration, and in consultation it was decided to give it a trial.

The suppurating and eruptive surface was carefully cleansed with carbolyzed boiled water, and the superfluous moisture being absorbed by borated cotton, was freely coated with dry acetanilid and covered with antiseptic lint. It produced at once a burning sensation which patient complained of bitterly; but this effect was transient, and in half an hour had completely passed away, when, at 3 p. m., patient was left in a state of complete comfort and tranquillity. Not long after midnight of this day (November 17), Dr. Anderson was called from his sick-bed to see Mr. X., the message being that he was in a most alarming condition. On reaching the patient he was found to be completely tranquil himself, and protesting against the excited state of his wife, who was naturally greatly alarmed at the pronounced state of cyanosis he presented. The face, especially the nose and lips, as well as the extremities of the fingers and toes, were blue.

The pulse had been, the wife thought, weak and slow when she had first noticed the blue color of his lips and nails, and later accelerated; but when the Doctor responded to the summons about 2 a. m., the patient's heart was tranquil, and the pulse only exhibited a great fullness, as distinct from its ordinary character, while the temperature was normal and respiration natural. Beyond the fullness of the pulse there was absolutely no changed condition except the cyanosis, which gradually passed away in twenty-four hours. The appearance of the limb was peculiar, and persisted for several days. All the granulations had a shrunken, desiccated look, like cutlets

of beef long exposed to the atmosphere, the pustules were scarcely demonstrable, and there was absolutely no formation of pus for forty-eight hours. A consultation determined against the further use of acetanilid, in consequence of the poisonous effects manifested, and on the third day aristol was substituted at my suggestion; but there is no doubt that a permanent effect was produced on the open granulating surfaces by this one application and the eczema influenced in an equal degree. We are warranted in this conclusion, as from this day the healing process went on rapidly, the eczema disappeared, and on March 9th the patient went abroad with a good covering of skin, save at the seat of two small ulcerated surfaces, where the original injury had affected the superficial muscular fibre, and with scarcely any cicatricial tissue, most of the original grafts having survived through the many months of profuse suppuration and eruptive irritation.

Not many cases of poisoning by the use of acetanilid have been recorded, and the one cited through its external use is unique. In all, cyanosis is noted with pale and haggard face, nose, lips and extremities of fingers blue, pulse slow and weak, and a slightly subnormal temperature, in fact, an apparent collapse; but in none did it seem to be a grave condition, the patients in no sense showing the anxiety of those around, slight stimulation soon overcoming the disturbance of the circulation. The essential toxic effect of acetanilid would seem to be an interference with the physiologic process of blood oxygenation, rather than a disturbance of the circulatory and respiratory functions, the cyanosis being persistent after the normal reestablishment; or, as Professor O. L. Potter expresses it: "The toxic effect is to destroy the ozonizing function of the blood, decolorizing it and forming methyl-hemoglobin." Poison-

ous effects have followed 30 grains taken in two doses within a period of two hours; yet 100 grains taken by Dr. Simpson, of New York, in seven doses, within a period of two and one-half hours, produced no toxic effect whatever.

As a summary of its surgical advantages, I beg leave to present the following enumeration: It is cleanly, odorless, antiseptic, desiccant, hemostatic, stimulant, alterative, non-toxic practically, lasting in its effects, if intermitted, does not crust, easily removed, and it acts in these ways when perfect cleansing of a wound is impracticable; while it is a perfect substitute for iodoform at an insignificant cost, and is not injured or altered by moisture, as it may be saturated with water, and being drained and dried, is found to be unaltered.

With these advantages, acetanilid should be welcomed to the outfit of all surgeons, but especially to those of the Army and Navy, this simple enumeration of its excellencies seeming certainly to demonstrate its special adaptation to the field and campaign work of the former, and similar duty in connection with landing parties and shore duty of the latter; in time of war, its application to all wounds being soothing, beneficial, avoiding the necessity of immediate, careful, antiseptic cleansing, and permitting of delay in completing the final surgical attention in most cases a delay often as necessary as desirable on shipboard, on account of the rolling of the ship or stress of weather.—*Journal Amer. Med. Association.*

SACCHARINE is recommended as an excellent intestinal antiseptic by Caparoni, of Rome. He gives it in doses of fifteen to forty-five grains a day in typhoid fever and other affections.

Abstracts.

RECOVERY AFTER A PISTOL BALL PASSES THROUGH THE BRAIN.—Kirk (*St. Louis Clinique*) reports the case of a negro child 3 years old which was shot through the head by a pistol in the hands of another child. The ball entered about the center of the vertex. Brain substance was oozing from the wound when he saw it, fourteen hours after the shooting. A silver probe passed readily for its entire length centrally and led to the detection of the ball, which was removed from the posterior part of the neck next to the atlas. The wounds were dressed with cloths wet in carbolic acid solution, and a mixture of potassium bromide and gelsemium given as needed for restlessness and fever. The wounds healed kindly, and after a month the child was well with the exception of a slight paralysis of the left side, as shown by weakness of the arm and leg. The child did not fail to eat and sleep during the month and only fretted on account of having to remain in bed. The muzzle of the pistol was only two feet from the child's head when the shot was fired.

SOME COMMON SOURCES OF ERROR IN TESTING FOR SUGAR IN THE URINE.—Sir George Johnson (*The Lancet*, July 7, 1894) contributes an interesting and valuable paper upon this subject. The explanation of the mistakes which have been made in using the copper test for sugar is to be found in the fact that all normal urines contain two substances which resemble glucose in their power of reducing the oxide of copper: these substances are uric acid and kreatinine. Dr. Pavy's theory that three-fourths of the reducing power of normal urine upon copper solution is due "to the

small amount of sugar naturally present in the urine" has been proven to be incorrect by the author's son, George Stillingfleet Johnson, who has shown this power to reside in the kreatinine. The success of his investigation is mainly due to the fact that he has done what had never before been accomplished—by mixing mercuric chloride with urine he not only separates the uric acid, but he obtains the whole of the kreatinine in combination with mercury as a definite chemical compound. The mercurial salt being analyzed, he finds it to contain one-fifth of its weight of kreatinine, and the kreatinine thus separated in a beautiful crystalline form has had its ultimate composition accurately determined. The uric acid and the kreatinine having been removed by the mercuric chloride and the excess of mercury got rid of by ammonia and subsequent filtration, the filtrate is found to have no reducing power upon a copper solution or upon picric acid. That the separation of the kreatinine by the mercuric chloride process does not remove any glucose that might be present is proved by the fact that when a known quantity of glucose is added to normal urine it is found undiminished after the removal of the kreatinine. It was his discovery that the kreatinine in normal urine is sufficient to account for the total reduction of picric acid when that agent is used as a test, and for three-fourths of the reduction of cupric oxide, the remaining fourth being due to uric acid, that led to the conclusion that no sugar is present in normal urine. Additional evidence of the absence of sugar from normal urine is afforded by the fact that the very sensitive phenylhydrazine test gives no indication of sugar

in that secretion. It has been suggested that these researches would have attracted more attention if he had given a new name to the substance which he has isolated and analyzed, but as it is isomeric with other kreatinines it is perhaps sufficient to distinguish it by the name of the "natural kreatinine of urine." A very simple experiment shows how minute a quantity of urinary kreatinine suffices to give the characteristic red color with the picric acid test. A drachm of a saturated solution of picric acid is mixed with an equal quantity of water and half a drachm of liquor potassæ (P.B.). The precipitated picrate of potash is dissolved by raising the mixture to the boiling point. The result is a liquid of a slightly darker yellow color than the cold and undiluted picric acid solution, but without the slightest tinge of red. If now a single drop of a solution of kreatinine, in the proportion of 1 grain to the fluid ounce, be allowed to trickle down the side of the sloped tube into the liquid a bright red color is rapidly diffused from the top to the bottom of the column of liquid.

It may be that the readers of this paper would find it difficult to obtain the genuine urinary kreatinine, which at present is not to be bought from any manufacturing chemist, but they will find that precisely the same result follows the addition of a drop of normal urine to the hot solution of picrate of potash. The proportion of kreatinine in an average specimen of normal urine and in a grain to the ounce solution of kreatinine is approximately the same, and the amount of the agent in one minim of the aqueous solution, as in one minim of normal urine, would obviously be no more than 1-480 of a grain. In using the picric acid test for glucose with a knowledge, which every

practitioner should possess, of the reducing action of kreatinine upon that agent, it is scarcely possible to fall into the error referred to at the commencement of this paper, namely, that of supposing that sugar exists in urine which is quite free from that substance. When to a drachm of normal urine in a test-tube about half an inch in diameter is added an equal volume of a saturated solution of picric acid and half a drachm of liquor potassæ, the mixture immediately becomes red, owing to the partial reduction of the picric acid by kreatinine. Kreatinine differs from glucose in the fact that in the presence of potash it exerts some reducing action on picric acid at the ordinary temperature of the air. When kept at the boiling point for a minute the color is deepened, and in normal urine it may be such as to indicate what, if glucose were the reducing agent, would equal from 0.6 to 1.2 gr. per fluid ounce, as shown by the picrosaccharometer. I have repeatedly shown that a solution of glucose, in the proportion of 2 grs. to the fluid ounce of water, when tested as above described, gives so dark a color that no red light is visible through the middle of the column of liquid. If, therefore, a sample of urine having been thus tested, a bright red color is transmitted through the full diameter of the test-tube when held up to the light, the reduction is due to kreatinine alone and no glucose is present. If, however, the color is so dark as to indicate an amount of reduction equivalent to 2 or more grains of glucose, this is more than the largest proportion of kreatinine hitherto found in any specimen of urine would account for, and the presence of sugar is indicated. The amount of sugar can be determined after separating the kreatinine by the mercuric chloride process before described.

A NEW OPERATION FOR PILES.—Dr. J. S. Wight (*Med. and Surg. Reporter*) says the pile is gently drawn down with the tenaculum forceps, and then clamped with the pressure forceps. All that part of the pile below and outside the pressure forceps is cut off evenly with the scissors; a knife may be substituted for the scissors. The needle is armed with a catgut suture of proper strength, and the suture is carried around and above the jaws of the pressure forceps, so as to embrace and include all the stump of the cut-off pile; that is, the suture is a continuous one. One end of the suture projects from one border of the pile stump, and the other end projects from the other border. The ends of the suture are now put together in the first step of the surgeon's knot. Then the pressure forceps are unlocked and gently removed, being extracted from the loops of the continuous suture, which is at once drawn tight and the tying completed. If these movements are well executed, there will be no hemorrhage, the wound made by the excision of the pile being securely closed. Each pile, in its turn, is dealt with in the same manner, the pressure forceps being applied in such direction as the judgment of the operator may dictate. This method of operating has the following advantages: (1) Easy and rapid work; (2) Absence of hemorrhage; (3) Complete excision of the piles; (4) The suture-ligatures take care of themselves; (5) Repair with a small quantity of scar-tissue; (6) The patient can get out of bed in a few days; (7) A good result is quickly obtained.

SEROTHERAPY.—(Van Schaick, *New York Therapeutic Review*). The serum of animals and even of men, either normally or artificially rendered immune to the effects of certain infectious diseases,

has been proved to possess properties which render it of the highest value from certain prophylactic standpoints, and of great probable use in the treatment of actual infection.

Researches on serotherapy date from but a few years ago. While Richet and Hericourt first announced the preventive properties of the blood of animals which had been rendered immune against a special form of septicæmia, the publication of the researches made by Behring and Nissen in regard to the bactericidal properties of the serum of animals vaccinated against the *Vibrio Metchnikovi*, and, of still greater importance, the experiments published a few months later, in December, 1890, by Behring and Kitasato, in regard to two of the most infectious diseases known, diphtheria and tetanus, mark the beginning of what we may be allowed to call the era of serotherapy.

A host of experiments bearing upon serotherapy are now being conducted, and new data are constantly being added to our knowledge of the subject. Most important, among others, are the investigations that have been carried on in regard to pneumonia, tuberculosis, syphilis, influenza, cholera, anthrax and typhoid fever.

As regards tuberculosis, we know that dogs, while refractory to experimental aviary tuberculosis, are no longer immune if inoculated with human tuberculosis. Hericourt's investigations demonstrate the interesting fact that if dogs are vaccinated with a culture of aviary tuberculosis, they become refractory to the human form, and their serum acquires an antitoxic property towards the latter. Dieulafoy has obtained some good results in the application of this serum to the treatment of tuberculosis, of which we are undoubtedly destined to hear more.

Further researches may prove that in serotherapy we may find the very best weapon against syphilis. Tommasoli has treated this disease by the injection of serum taken from animals normally refractory to syphilis, such as sheep and calf. He injected from four to eight cubic centimeters at a time in the gluteal region of his patients, who numbered 13, and suffered from manifest forms of secondary syphilis. An average number of six injections was made in each case. The specific manifestations disappeared within a fortnight in every instance, and the patients, all of whom were observed for periods ranging from four to seven months after the treatment, have so far shown no return of the disease. Some disturbances, such as local pain at the site of injection, slight febrile movements of a transitory nature usually resulted, especially when the dose was larger than four c.c., but were not severe enough to constitute a contraindication to the employment of this treatment. Pellizzari and others, especially in Italy, have also made investigations in the same direction, which tend to show that in the near future we shall be placed in possession of a royal road to the cure of this frightful malady.

THE NEW MYDRIATIC SCOPOLAMINE.—Dr. Guttman (*Therap. Monats.*) gives an account of numerous observations made by him with scopolaminum hydrochloricum in solutions of 1 in 1,000, 2 in 1,000 and 4 in 1,000. In the normal eye the second solution produced mydriasis maxima in 10 to 13 minutes, in the inflamed eye after 10 to 35 minutes, four to seven days after being required for the narrowing of the pupil, and three days for the return of pupillary reaction to light; 15 to 20 minutes produced some anæsthesia of the cornea. The accommodation be-

came paralyzed after 3 minutes, this condition reaching its height after 40 minutes, when it was more intense than after a 1 p. c. atropine solution. In practice it was very valuable in keratitis, parenchymatosis and iritis; but even the 2 in 1,000 solution was no more effective than a 1 p. c. atropine preparation. Scopolamine, being non-poisonous, can be used every hour, and even under these conditions but rarely produced temporary dryness of the throat, which, however, required no treatment. It was thus most valuable in the case of children, in whom it can be used two or three times a day during long periods, and without unpleasant results.—*Med. Record.*

A TREATMENT OF TYPHOID FEVER.—At the annual meeting of the Association of American Physicians Dr. S. A. Fisk, of Denver, Col., read a paper with this title. He said: I exhibit a chart on which my article is based. It is compiled from 30 average cases of typhoid under my treatment, running through three years. The chart is a composite of these cases. The morning temperatures for any one day, of all the cases, are added together and divided by thirty, and a mean temperature is thus obtained. The same way with the evening temperature; so that the chart as presented is a composite of the 30 cases, both with reference to the temperature and the pulse rate.

The cases are mostly hospital cases, and were obtained, as most hospital cases are, about the fourth or fifth day. They were cases of undoubted typhoid, not selected, having the usual symptoms, including rose spots, and treated almost by routine according to the method that I shall outline.

The chart shows a steady decline in both temperature and pulse rate from

the very beginning, and a short duration. It is my intention to compare it with a typical chart of typhoid fever taken from some text-book like Osler. And I am also having another composite made of 30 other hospital cases of the same dates as my own, from which I hope to show that my composite is the result of treatment rather than due to a variety of the disease, as might be thought, peculiar to our climate.

In brief, the treatment is: Calomel, 5 grains, at the very start, followed by a saline; a tumbler of milk, peptonized if necessary, every three hours, followed in twenty minutes by four minims of the oil of turpentine, four minims of castor-oil, 10 grains of the subnitrate of bismuth and a drachm of mucilage of acacia. This has the effect of constipating the bowels, so that every second morning I give anywhere from two teaspoonfuls to a tablespoonful of castor-oil, the patient usually feeling high. I believe with Dr. Stedman, in the city hospital reports of Boston, that the pulse is a better indicator of prognosis than the temperature. After the temperature has remained normal, or in many cases subnormal, a week or ten days, I begin to feed gradually, preferring animal diet, in the way of broths, eggs and the juice of beef, to starchy foods. If the pulse becomes feeble, I stimulate with whiskey, one-half ounce every two or three hours p. r. n., and use digitalis or strophanthus, rather preferring the latter.

Dr. R. E. Atkinson, of Baltimore, opened the discussion. He called attention to the value of avoiding the constipation due to a milk diet by appropriate treatment.

Dr. C. F. Folsom, of Boston, believed that Dr. Fisk had had 30 very mild cases. After he (Dr. Folsom) had seen

150 cases he had ventured to make some generalizations, but after he had seen 450 he had wished he could take back what he had said. In the Boston City Hospital they had tried every treatment. He believed that the teaching of their 1,500 cases is that medicine has little effect. The cold-water treatment was satisfactory.

Dr. Adams, of Washington, agreed with the latter.

Dr. Osler, of Baltimore, said that Dr. Fisk had not treated typhoid; he had simply given medicine to mild cases, as every other physician does when he is called upon to treat such cases and who is expected to do something by the friends of the patient. Dr. Osler said that at the Johns Hopkins Hospital the mortality with the Brandt method was 6 per cent.

Dr. Victor C. Vaughn, of Ann Arbor said that though the cases had been mild, he believed the castor-oil and turpentine had been beneficial.

Dr. Fisk, in closing the discussion said that he had anticipated such criticism, but had nothing to say.

POSTAL TRANSMISSION OF SMALL-POX.—Dr. Karkeek, the health officer of Torquay, England, records in his report for last year the occurrence of two cases of small-pox in which the infection was conveyed by correspondence from a nurse in a small-pox hospital. One of the cases occurred ten years back, and the other last April, the patient falling ill two days after leaving Torquay. His friends had suggested risk from reception of letters written by a hospital nurse engaged in attending small-pox cases, but he had pinned his faith on supposed disinfection of all letters. How far he was mistaken in his supposition was shown by the sequel.—*Med. Record*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

SYSTEMATIC STUDY.

Many young men are making their arrangements for procuring a medical education, and are just now trying to decide which of the many colleges they shall attend. A good many decide this question from a sentimental rather than from a practical, business standpoint—because their father or their preceptor graduated from a certain college, there they must go, regardless of the fact that while it may have stood high in the days gone by, it may not occupy the same position to-day. Others select those colleges where the expenses are smallest, where the course is the shortest, or where the requirements for admission are the lightest. On the other hand, not a few choose that school where the requirements for admission and graduation, and the facilities of the school are a guarantee that, when they emerge from its walls bearing in their hands its diploma of graduation, they

will be possessed of such a degree of medical education as will enable them to quickly take their place among the leading members of the profession. These last are they who will go before the boards of medical examiners in perfect confidence that they will not have to spend another year in study before they are permitted to enter upon the practice of their profession. Those who would practice medicine should bear in mind the fact that a diploma and a license are no longer synonymous terms, at least in the majority of the States. Select, then, that college which requires the most of you and offers you the greatest facilities, young men, and go with the determination of making the most of every day and hour you spend there, and when you are ready to practice there will be room enough for *you*, however crowded others may think the profession.

Having entered college, take the graded course and devote your time to

those branches which belong to you. Let clinics alone the first two years and give that time to your text-books. Don't devote your time the first year to becoming acquainted with the city and seeing the sights, thinking you have a plenty of time and that next year you will settle down to work in earnest. Regulate your living, your hours of study and your exercise and recreation, so that your forces shall be conserved, and at the end of the term you will be stronger and heartier even than at the beginning. It is not hard work *per se* that hurts a man, but it is the hard work *plus* the dissipation so often indulged in by college students. Take an hour each day for physical exercise—when possible, a quiet spin on a bicycle would prove the best, in our opinion (handles three inches above the saddle)—or else seek some well ventilated gymnasium, where a sponge bath may follow the exercise. Take eight hours for sleeping each night, having stated hours for retiring and rising—one hour's study with a clear brain is worth two with heavy eye-lids. Let alone tobacco as much as possible, and alcoholic stimulants absolutely. Having ascertained the class hours for the branches you have taken up, make your hours for study, meals and exercise conform to those. Set aside one evening a week for attending some reputable opera or theatre, but do not venture into any of the questionable places to which you will surely be invited by some of the boys, saying to yourself you will only go this once as a matter of information. "Evil communications corrupt good manners" and it will not be long before you will try it "just once more." Don't think that all these things will move away before you finish your course, and so you will miss the chance of seeing them. No one of our large cities is apt to turn so good that you will not,

at any time you desire, be able to find a sufficient number of these places to complete your *education*. (?)

If all the young men who leave North Carolina this year to attend a medical school, select which school they may, will go with the determination to study systematically and make use of every facility that is offered them, when they come to present themselves before our strict Board of Examiners, there will not be *thirty-five* per cent. rejected, as is the case nearly every year.

NOT EXACTLY.

The *Buffalo Medical and Surgical Journal*, in decrying the habit of trumping up of all sorts of means by practitioners in New York to escape standing an examination before the State Board of Examiners, says: "And this in spite of the fact that the State license is a far more valuable instrument than the diploma of any medical school, and is worth all the effort that it costs in time and money. It enables a man to practice anywhere in the United States, and even foreign countries are beginning to accord it recognition. It bears the stamp of the great Empire State, and is a commission that ought to beget pride in any man who holds it."*

In the great State of North Carolina, which led by several years all other States in the enactment of laws for the protection of its citizens from incompetent practitioners, the diploma of no school, the license of no Board of Examiners, is recognized, but every applicant for license must stand the examination—we think this is the case in Virginia and in some other States. It would be eminently unwise for State Boards to recognize the licenses issued by each other until the laws of all the States are equal in excellence.

Reviews and Book Notices.

A Primer of Psychology and Mental Disease. By C. B. Burr, M.D., Medical Superintendent of the Eastern Michigan Asylum, etc., etc. Geo. S. Davis, Detroit, Mich., 1894.

This little work of an hundred pages is intended as an aid to the members of the Training School Class at the Eastern Michigan Asylum. The book is divided into three parts, the first being devoted to Psychology, the second to the causes and symptoms of insanity in its various forms, and the third to management of cases of insanity. The book is well written, concise, and will be found useful to all physicians, if only as an aid in the determination of forms of mental disease. It is provided with a complete index and a helpful glossary.

A Text-Book of the Diseases of Women. By Henry J. Garrigues, A.M., M.D., Professor of Obstetrics in the New York Post-Graduate Medical School and Hospital; Gynecologist to St. Mark's Hospital in New York City; etc., etc., etc. Containing three hundred and ten Engravings and colored Plates; 8vo.; 690 pages. Price, cloth, \$4.00 net, sheep \$5.00 net. Mr. W. B. Saunders, Philadelphia, 1894.

The author has tried to prepare a practical treatise on gynecology for those physicians who, not having the opportunity of a hospital course, attend the post-graduate schools. It will also fill a place among those general practitioners who find it impossible to leave their practice. The work is divided into a General and a Special Division. The former, in eight parts, each of these being subdivided into chapters, embraces the development, anatomy and physiology of the female pelvic organs, etiology in general, examination in general,

treatment in general. We notice in this division two parts devoted, respectively, to Abnormal Menstruation and Metrorrhagia and Leucorrhœa. The second division takes up the diseases of the several anatomical parts, beginning with the vulva. The various operations are well described and are found along with other methods of treatment of the conditions which call for them. The illustrations are very helpful and mostly diagrammatic. The work is carefully written by one thoroughly competent, and will prove a useful and safe guide to its readers.

The Treatment of Naso-Pharyngeal Diseases and Their Aural Consequences. A lecture delivered at the Missouri Medical College. By H. N. Spencer, A.M., M.D., Professor of Diseases of the Ear. J. B. Lippincott Co., Philadelphia, Pa., 1894.

This brochure of thirty-two pages embodies the author's teaching in the school in which he occupies a chair. It is interesting and instructive and well supplied with diagrammatic illustrations.

The Care and Feeding of Children. A Catechism for the Use of Mothers and Children's Nurses. By L. Emmett Holt, M.D., Professor of Diseases of Children in the New York Polyclinic, etc. D. Appleton & Co., New York, 1894. Price 50 cents.

This little volume of sixty-five pages is the result of a series of questions written out by the author for the purpose of formulating, for the nurses in the Practical Training School for Nursery Maids, those things which were matters of daily observation in the practical work of the hospital. The matter is in the form of questions and answers, and is put in a manner to make it clear

and easily understood by any one of intelligence. A large proportion of mothers now-a-days attend to their own children, and for these this little book will be especially useful as giving them, in a condensed, practical style, the information which they should have and which they so sadly lack. Every doctor should see to it that all of the mothers among his clientele, who have or are likely to have young children, should possess a copy of this really valuable little book.

A Manual of Instruction in the Principles of Prompt Aid to the Injured, including a Chapter on Hygiene and the Drill Regulation for the Hospital Corps, U. S. A. Designed for military and civil use. By Alva H. Doty, M.D., Major and Surgeon, Ninth Regiment, N. G. S. N. Y. Second edition, Revised and Enlarged. D. Appleton & Co., New York, 1894. Price \$1.50.

The first attention in emergency cases often determines the final outcome. Five years ago the author prepared the first edition of this work that all those who desired might obtain such information as would enable them to act intelligently and for the good of the patient in cases of injury and sudden sickness. The first portion is devoted to necessary instruction in anatomy and physiology. These chapters are freely illustrated, as is also the chapter on bandages and dressings.

The volume has been carefully revised and there have been added a chapter on personal hygiene and one devoted to transportation of the wounded, which also includes the drill regulations for the hospital corps, U. S. A.

Practical Urinalysis and Urinary Diagnosis is an important new book just announced. A manual for the Use of Practitioners and Students, with numerous illustrations, including colored photo-engravings. By Chas. W. Purdy, M.D., of Chicago. A one-volume practical and systematic work of about 350 crown-octavo pages, in two parts, subdivided into twelve sections, and an appendix.

Part I. is devoted to the general subject of Analysis of Urine, and Part II. to Urinary Diagnosis.

In the Appendix is presented the highly important subject of Examination of Urine for Life-Insurance, wherein full and explicit rules for the thorough physical, chemical and microscopical examination of the urine of applicants for life-insurance are given, and the information here presented is of the greatest value to every physician who examines for life-insurance companies.

The well-known house of The F. A. Davis Company, 1914 and 1916 Cherry St., Philadelphia, will issue the work in September, 1894. The book will be first-class in quality of paper, press-work and binding, and the price most reasonable, namely, \$2.50, net, in extra cloth.

Correspondence.

NORTH CAROLINA DOCTORS IN THE CONTINENTAL ARMY.

Mr. Editor :—The following extract from the proceedings of a court-martial, which sat in the last year of the War of

the Revolution, taken from a time-stained old letter-book in the Third Auditor's Office of the Treasury Department at Washington, will probably be of interest to members of the medical profession as establishing who were surgeons of

the several North Carolina Continental regiments at the time mentioned :

"We certify that on the 19th of August, 1782, the following surgeons were annexed to the four regiments then in service, belonging to the State of North Carolina, viz :

"1st. Regiment, Dr. Green.

"2d. " " McClure.

"3d. " " Loomas.

"4th. " " Blyth.

"That on the date above specified Dr. Loomas wrote to Major Blount, then Commanding Officer of the District, informing him he did not mean to serve in that capacity in the Army any longer, and had sent in his resignation to Brigadier Sumner, then Commanding Officer of the State. Mr. James Fergus, being the only mate belonging to these regiments (Continental), he became entitled to the first vacancy.

"READING BLOUNT, Major.

"BENJ. COLEMAN, Captain.

"Major Blount and Capt. Coleman also say that they've frequently seen Dr. Loomas since his resignation, that he's in private practice, and does not consider himself as belonging to the Army.

"The Court are of opinion, from the certificate of Major Blount and Captain Coleman, that Dr. Fergus is entitled to a surgency from the 19th of August, 1782, at which time Dr. Loomas resigned."

The commission of Dr. James W. Green, Surgeon of the 1st Regiment, who seems to have been assigned originally to the 10th Regiment, bears date the 7th of December, 1779, but I have been unable to ascertain the date of Dr. Joseph Blyth's commission.

The names of Drs. Blyth, Fergus, Green and McClure appear in the official list of officers,* "who continued to the

end of the War," as do also those of Dr. Solomon Halling and Surgeon's Mate William McClaine, but no mention is made of the organizations with which the last two served. Nor is the date of Dr. Hallings' commission given. Wm. McClaine was appointed as late as January 1st, 1783.

Facts of this nature the late Dr. Thomas F. Wood often sought to ascertain and gladly welcomed to the pages of the JOURNAL. It is of general interest, too, as settling the question of what regiments of the North Carolina Line were then in service—a matter concerning which there has been some doubt. The next year, 1783, the regiments were reduced and consolidated into one, which remained in service until peace was declared and ratified, the junior officers being retired "on waiting orders" until November 15th, 1783, when all were mustered out.

Dr. William McClure was long in service. His first appointment was as Surgeon of the 6th Regiment of the North Carolina Line, 17th April, 1776, from which he was shortly after transferred to the 2d Regiment. Dr. Jonathan Loomis was appointed Surgeon first of the 8th Regiment, 26th November, 1776. Dr. James W. Green was "Surgeon's Mate" as early as June 10th, 1778, and was advanced to Surgeon somewhat later. The first record of Dr. James Fergus as Surgeon's Mate is of 21st February, 1782; he was promoted Surgeon 20th August, 1782.

GRAHAM DAVES.

New Bern, N. C.

RED IODIDE OF MERCURY IN THE TREATMENT OF CONSTITUTIONAL SYPHILIS.

Mr. Editor :—I take the liberty of sending to your elegant and valuable

*University Magazine, May, 1894, page 79.

JOURNAL the following item illustrating the value of the red iodide of mercury in the treatment of constitutional syphilis.

HOT SPRINGS, Ark., March 1, 1894.

Dear Doctor:—I must write and tell you of a case of syphilis that I have been and am still treating with your old R., the one with the red iodide of mercury, tinct. iodin. and potass. iodid.

It was certainly the worst case that I have ever seen, even in this place. The legs, arms and especially the inner surfaces of the thighs, were literally one ulcerating mass, the man only being able to hobble along with the aid of two crutches. The stench was almost unbearable. I put him upon your R., and had a solution of permanganate of potass. applied to the ulcers, and I attribute his improvement solely to his medicine, as he has been unable to leave his room for over two months until now. I think it will only be a short time before he can get to the bath-house and bathe.

Unfortunately, he is only a poor negro, so has been obliged to put up with only the barest necessities.

Our season has been very poor here

this year, lack of money, no doubt, being the cause.

I hope that your health has been good this winter.

With kindest regards,

Very respectfully yours,

A. F. KOONTZ.

To Prof. Jos. Jones, M.D.,

New Orleans, La.

I have used the iodide of mercury in solution with iodide of potassium and free iodine with gratifying success in various places and at various times, as at Augusta, Ga., 1857-'66; in the Confederate Army, 1861-'65; Nashville, Tenn., 1866-'68; New Orleans, 1868-'94.

The formula alluded to in the valued favor of my friend, Dr. A. F. Koontz, of Hot Springs, Arkansas, is essentially as follows:

R.—Red iodide of mercury .grs. iv
Iodide of potassium... ʒ iv
Tincture of iodine... f ʒ ii
Distilled water sufficient to make..... f ʒ viii

M. Sig. Teaspoonful in wine-glass of water three times a day, one hour after each meal.

JOSEPH JONES, M.D.

756 Washington Av., New Orleans.

Notes of Practice.

SALOL IN ECZEMA.—Dr. J. Abbott Coutrell (*Coll. and Clin. Record*) has recorded his experience with the use of salol in 120 cases of eczema, embracing cases of E. intertrigo, E. vesiculosum, E. pustulosum, E. squamosum and E. rubrum. The drug was used in strengths varying from grs. x to grs. xxx to ½ oz. of vaseline. Cures were effected in from one to four or five weeks, accord-

ing to the nature and duration of the eruption.

CARBOLIC ACID IN THE TREATMENT OF BURNS, CARBUNCLES, ETC.—Dr. D. H. Brodnax highly recommends the application of carbolic acid to burns, of all degrees of severity. He keeps the pure crystals on hand and adds to them just enough water to dissolve them, po-

sibly 10 p. c., or makes use of the deliquesced acid. Aside from its curative action in burns, he has found that in sciatica the hypodermatic injection of from 5 to 10 drops of a solution of 20 drops of carbolic acid to the 1 ounce of water carried down to the seat of pain produces almost instant relief. In carbuncles and boils he injects a solution of from 25 to 50 drops to the ounce of water deeply into the inflamed area a couple of drops in three or four places. On the following day the injection is repeated if necessary. The inflamed area is covered with a little absorbent cotton smoked in :

R.—Carbolic acid.....gtt. xxx
Tannin ʒ iv
Aquæ ʒ ij

By this means the morbid process is arrested. In gonorrhœa he employs injections of the strength of 10 drops of carbolic acid to the ounce of water, giving also 2 or 3 drops three times a day. A cure is usually effected in about three weeks.—*Med. and Surg. Reporter.*

NITRATE OF POTASSIUM IN PHEGMASIA ALBA DOLENS.—Dr. Gregory H. Hornanian recommends, in the *Medical News*, nitrate of potassium in the treatment of milk-leg. He reports three cases occurring within a month in which the results were marked and rapid. The remedy is given in doses of 5 grains in aqueous solution every hour or half hour, and the intervals increased as the symptoms improve.

SUMMER DIARRHŒA.—After the alimentary canal has been cleansed of irritating materials by the most available means, which may be, according to circumstances, lavage of the stomach, irrigation of the bowel, or the administration of a purge, usually calomel, or a mixture of castor-oil and spiced syrup of rhubarb (equal parts); and after the

diet has been duly regulated, I have observed very satisfactory results from the administration of the following combination :

Benzonaphthol.... }
Bismuth salicylate... } ..of each 5 grs.
Dover's powder... }

In capsule, cachet, or powder.

To an adult, one capsule is given every three hours, or as necessary. It is rarely needful to exceed four doses in the 24 hours. To children, the same preparation may be given in reduced dosage; thus to a child of two years I have given :

Benzonaphthol.....1 grains.
Bismuth salicylate.....2 “
Dover's powder.....½ grain.

In the mildest cases benzonaphthol alone has proved efficient, and in many cases the opium is unnecessary; but, as a rule, the combination of the three ingredients in the proportions stated is more promptly efficacious, if present experience can be relied upon, than any other routine treatment I have used. This is the second season during which I have employed it.—DR SOLOMON SOLIS COHEN in *Med. News*.

DIABETES MELLITUS.—Dr. Solomon Solis-Cohen (*Coll. Clin. Record*), in the case of emaciated patients, or in obese patients temporarily when the sugar is excessive and does not yield to other measures, gives the following :

Codeine phosphate.... .gr. ij
Alcoholf ʒ iv
Dilute phosphoric acid.....f ʒ ij
Glycerin.....f ʒ ij
Solution of hydrogen dioxide
(10 volume), enough to
makef ʒ iij.

Dose, 2 teaspoonfuls in 3 ounces of water.

He prefers codeine to any other drug. The dose is from 3-8 grain to 12 grains or more daily. It is to be given first in

small doses, increased until the point of tolerance is reached or improvement is manifest, and then decreased to the smallest dose at which the gain made can be held.

ASEPTIC SURGERY.—Dr. Robert Reymburn (*Coll. and Clin. Record*) concludes a paper on this subject with the following maxims:

1. Never use a drainage-tube in a wound unless you are absolutely certain you cannot get union by first intention.

2. If you have an amputation to perform, ligate every vessel requiring it with aseptic catgut, silkworm gut or silk; cut the ligatures off close to the vessels and leave them in the stump, close the flaps with similar sutures, and use no adhesive plasters in contact with the flaps of the stump.

3. After you have stitched up the flaps, dust their surfaces with iodoform, boric acid or subnitrate of bismuth.

4. Place over this a layer of iodoform

gauze, then an abundant layer of aseptic cotton, and over all this two layers, at least, of a well fitting bandage. The reason why I do not use adhesive plaster in contact with the flaps of the stump is, that it cannot be properly sterilized, and is very often the means of infecting the stump.

5. Above all things, never open a stump for ten or twelve, or even fifteen days after an amputation, if the temperature of the patient is at normal point, or even a degree above. On the other hand, if the temperature goes up to 102° or 103° , open up the stump at once and find out the cause of the trouble.

THE best, safest and cheapest sponges are made from absorbent cotton and butter cloth. A bunch of cotton, larger or smaller, as desired, is put on a square of butter cloth, cut the size of a ladies' handkerchief. The four corners are tied over the cotton, and the "sponge" is complete.—*Ex.*

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Dr. B. L. Ashworth has removed to Old Fort, N. C., where he will continue the practice of his profession.

The *Atlanta Clinic* begins its second volume in a new dress and new shape. It is now published in regular magazine form.

The St. Louis *Clinique* has passed into the hands of Dr. Emory Lanphear, Professor of Surgery in the College of

Physicians and Surgeons. Dr. Lanphear will conduct the journal in the interests of that school and of the medical profession of the West.

The American Electro-Therapeutic Association will hold its fourth annual meeting at the New York Academy of Medicine, New York, September 25th, 26th and 27th. An elaborate program has been arranged, many important papers being promised by leading electro-

therapists. We notice upon the list the names of such distinguished authorities as Dr. Georges Apostoli, Dr. Georges Gautier, Dr. A. H. Goelet, Dr. Margaret A. Cleaves, Dr. G. Betton Massey and Dr. A. D. Rockwell. Dr. Margæet A. Cleaves, New York, is the Secretary.

The Doctor and Druggist is a new aspirant for public favor. For the benefit of the journal the editor keeps his individuality undiscovered, and says as there is a plenty of room on top, he has tried to get there at a single bound.

WHAT KEELEYISM ACCOMPLISHES.—A Keeley "graduate" now under treatment for relapse, furnishes the following information concerning his native town: "Of sixteen cases that went through 'cure,' three have since died suddenly, one committed suicide, eleven have relapsed and one still holds out."—*Ex.*

The fifteenth annual meeting of the North Carolina Pharmaceutical Association will be held in Asheville, September 3d, at the Battery Park Hotel. The meeting will be called to order on Monday, promptly at 9 o'clock. All sessions will be short, occupying in all only one day, so that all members in attendance may devote most of their time to the meetings of the American Pharmaceutical Association, which will hold its forty-second annual meeting at the same time and place with the State Association. It is hoped that North Carolina pharmacists will embrace this opportunity of becoming members of the national Association. Reduced rates over all railroads and at the hotels have been secured.

Richmond Journal of Practice is the title by which will be known that breezy, independent journal, published in Richmond, Va., by Dr. J. F. Winn, and which

to this time has been simply *Practice*. While changing the title of his journal Dr. Winn has added several improvements, among which is the coöperation of a corps of collaborators, new type, better paper and more pages. We extend our hearty congratulations to the able editor and bespeak for him continued and increased success.

The "black plague," which is at this time raging in China, is described by a correspondent as "an acute contagious fever with distinct epidemic tendency, characterized by extreme debility and development of buboes, carbuncles and furuncles. It is extremely severe and usually fatal in three or four days." The fact that a vessel recently arriving at a Pacific port from Hong Kong reported a death from the disease *en route*, should put us on our guard, lest, favored by the rapid communication which now exists, the plague gain an entrance into our country. The Chinese quarters in San Francisco are probably no better from a sanitary standpoint than the native China cities, and if introduced there, the disease would, in all probability, rapidly develop. The mortality in China has been placed at 600,000 since May 1st.

The *Lancet* says there can be no longer any doubt that a very serious renewal or revitalization of the cholera epidemic has manifested itself in Russia, and that the sanitary and municipal authorities of St. Petersburg have had their attention seriously aroused to the increasing gravity of the situation. There were 171 fresh cases of cholera and 50 deaths registered at St. Petersburg on the 13th inst., and there were at that date, altogether, 460 cases under treatment in the hospitals. A further increase took place on the following day, when the

total number of fresh cases reported was 218, and the deaths 69, and on the 16th there were 196 fresh cases and 79 deaths. The outbreak is stated to be more severe than that of last year, the daily number of cases being greater and the mortality among those attacked higher. The disease is not confined to any one district, several cases having occurred in the infantry barracks and in the suburban districts of St. Petersburg. Moreover, cholera is said to be very prevalent at Cronstadt and to be present in the dock-yard and arsenal of that place, and several ports in Finland are also stated to be infected. The first cases in the present outbreak are stated to have arisen at Cronstadt.

Dr. William Thompson Briggs died at his home in Nashville, June 13, 1894. Dr. Briggs was born at Bowling Green, Ky., December 4, 1828, and received his medical degree from Transylvania University in 1848. He was appointed Demonstrator of Anatomy in the Medical Department of the University of Nashville in 1851. In 1865 he was made Professor of Surgical Anatomy and Physiology; in 1868, Professor of Obstetrics and Diseases of Women and Children, and in 1868, he was appointed Professor of Surgery, which latter chair he occupied until his death. He was one of the most distinguished surgeons of the South, and his judgment was appealed to far and wide as a consulting and operating surgeon. He was President of the American Medical Association at the Washington meeting in 1891. His son, Dr. Charles S. Briggs, editor of the *Nashville Journal of Medicine and Surgery*, has been elected to the chair of surgery, for so many years occupied, and but just vacated, by his distinguished father.—*Ex.*

Dr. H. B. Baker, Secretary of the

State Board of Health of Michigan, in a discussion upon what can be done for the prevention of rheumatism, which is usually reported as causing more sickness than any other disease, said that the Board had done much already for the creation of knowledge respecting the causation of the disease. But we must wait for an advance in two lines of investigation not much entered upon by this Board—that of bacteriology and that of physiological chemistry. Several times in the past it has seemed that facts were going to crystallize into a tangible theory; but, just as appearances were most favorable, ideas of medical investigators regarding the causation of rheumatism have changed. Much has been learned from the Sickness Statistics collected and published by this Board. Curves have been made showing that rheumatism has a direct relation to meteorological conditions. The facts in this office show that tonsillitis follows the cold atmosphere, and that rheumatism follows tonsillitis. It is quite probable that if rheumatism is a germ disease, tonsillitis prepares a soil favorable to the reproduction of the germ and a way for its entrance into the body. We are waiting for the bacteriologists to find the specific organism. So far as I know, only the pus forming germs have been found in connection with rheumatism, and it is quite possible that they are the cause of the disease; if so, its increase following the sore throats caused by "raw," cold weather, is explained by the facts on record in the State Board of Health office. Diagrams exhibiting the rise and fall of rheumatism, by seasons of the year, prove that its course is similar to that of small-pox, consumption and other diseases known to be caused by germs, and known to enter the body by way of the air-passages. Secretary

Baker suggested that a committee might be appointed to investigate the subject and report to this Board at some subsequent meeting.

Is there any worker in the world who sees more each day in the way of object lessons that teach him, if he be a thoughtful man, to be a philosopher, than a doctor? Indeed, the doctor, if he utilizes his opportunities, in spite of his discomforts, in spite of the fact that he is a slave to a horde of petty tyrants, has much to make him feel that life is worth living. If he be properly constituted, his sympathies are drawn upon, his better sentiments are aroused, and he is made day by day a better man. Seeing, as he does, sufferers of various kinds, no matter what his burdens may be, he can but feel that his own lot is better than that of many of the victims that come under his care; and so resignation, philosophy and a tranquil mind can but result to him if he properly utilize the lessons presented to him. While indulging in this thought my eyes fell upon the following lines from the pen of Robert Loveman:

Upon a crutch—her girlish face
Alight with love and tender grace—
Laughing, she limps from place to place
Upon a crutch.

And you and I, who journey through
A rose-leaf world of dawn and dew,
We cry to heaven over-much;
We rail and frown at fate, while she
And many more in agony,
Are brave and patient, strong and true,
Upon a crutch.

Surely there is less excuse for the medical man pining at his lot and railing at his fate than other men; for how many times he sees upon a crutch, or something worse, victims of suffering who are gentle, patient and resigned,

and a standing rebuke to complainers and those who kick at fate.—*Medical Mirror*.

MUSIC AS A HEALING POWER.—The idea that music possesses an actual healing power is about to be tested in London. The Guild of St. Cecilia is about to build or hire a large hall, in which musicians, specially trained to sing and play the very soft music which alone should be administered to those whose nerves are weakened by illness, shall perform by day and night. Telephones will connect this composite and continuous music-room with certain wards of London hospitals. Records and data of conditions and effects are to be kept and conclusions arrived at.—*Med. Rec.*

DISEASES ON RAILROAD COACHES.—In the laboratory of the Imperial Board of Health of Germany experiments were made, and the results which have been published show, says London *Science Siftings*, that the seeds of consumption were found in abundance in the dust collected, not only on the floors, but on the walls and seats of carriages. Samples of dust were taken from 45 compartments of 21 different passenger cars, and 117 different animals were inoculated with them. Part of these died very soon thereafter of various contagious diseases, before they had time to develop consumption; of the rest, killed four to six weeks after inoculation, 3 had tubercles. These 3, however, were inoculated with sleeping-carriage dust, taken, not from the floor, but from the walls, cushions and ceilings. Bacteria at the rate of 78,800 per square inch were found on the floor of a fourth-class carriage, and 34,400, 27,000 and 16,500 per square inch on the floors of the third, second and first-class carriages. Thus, even in the latter, the average passenger, who usually has at least half

a compartment to himself, say 3,000 square inches of floor, has an army of 49,500,000 deadly enemies aiming at his vitals on the floor alone, to say nothing of other millions in front and rear, on both flanks and overhead. It would seem impossible to escape; but a board of health is said to have reported measures for removing or reducing the danger, which the railroads are considering.—*Medical Record*.

CHOLERA.—Since our last report we are unable to chronicle any improvement in the progress of the epidemic. The outbreak in St. Petersburg this year is stated to have been more intense and fatal than in those of the two previous years. The first manifestations of the disease—which has penetrated into Finland—appeared at Cronstadt, but it had been for some time present in Poland. It is also stated to have reached the military camp at Krasno-Selo and the province of Esthonia. It has been announced that in consequence of the prevalence of cholera at St. Petersburg the customary manœuvres near the capital and the mobilization of the reserves will not take place. The daily number of cases recorded may be approximately stated at 200, with a death-rate among those attacked of about 50 p c. There were altogether about 1,000 cholera cases in hospital on the 20th inst. Great heat seems to have prevailed recently at St. Petersburg. The sanitary board of that city and its representatives have been very active of late in their efforts to check the epidemic outbreak, which has been actively prevailing for more than three weeks, but according to the latest reports now shows signs of declension. A serious increase in the number of cases took place after the 14th inst. According to an official bulletin published on the 21st there had been 1,292

cases and 584 deaths since the 15th, as against 375 and 294 respectively for the previous six days. The following figures give the number of cases and deaths from cholera in the various governments between the 8th and 14th inst: St. Petersburg, 247 cases and 34 deaths; Warsaw, 157 cases and 77 deaths; Kovino, 76 cases and 27 deaths; Novgorod, 1 case and 1 death; Tula, 1 case. Between the 1st and 14th inst. there were 32 cases and 15 deaths in the government of Grodno, and 243 cases and 143 deaths in Radom; while between the 1st and 7th inst. there were 11 cases and 8 deaths in Courland, 2 cases and 1 death in Livonia, 10 cases and 3 deaths in Petrikoff, and 47 cases and 16 deaths in Plotzk.

From Berlin we learn that a few cases have occurred among the raftsmen on the Vistula, and that 1 case had been admitted into the Moabit Hospital, and six soldiers suffering from choleraic disease have been taken to the military hospital at Thorn. A bargeman on the Spree at Charlottenburg, below Berlin, is stated to have died of cholera, and a fatal case of suspected cholera occurred in the hospital at Dantzic.

From Vienna it is reported that numerous cases have occurred in the district of Galicia and in that of Bukovina; but the disease seems to have greatly diminished or altogether disappeared in the city of Cracow. The Danubian States are acting in concert in taking sanitary precautions against the importation of cholera from Russian provinces.

The disease also prevails to a slight extent in several communes in Belgium, especially at Jemeppe. Eight cases of cholera have occurred at Liege since Saturday last.

From Constantinople it is reported that several cases of cholera have occur-

red at Adrianople, and that the disease had since spread in a way to cause much apprehension.

Intelligence from Paris states that a death from cholera had taken place at Avignon.

The subject of the Mecca pilgrimages has very naturally attracted a good deal of attention of late. The terrible loss of life that occurred last year and the scandalous disregard of all sanitary and common-sense precautions are well known, and the continuance or the recurrence of such a state of things is a question of grave international importance, as the delegates to the late Paris Conference did not fail to discern. Things were somewhat better this year. The number of pilgrims was comparatively small, no cholera epidemic was raging at the time, and the sanitary arrangements in Mecca had somewhat improved, but there still seems to be a lamentable want of sanitary establishments and proper provision for these

pilgrimages on shore and a dangerous amount of over-crowding on board the vessels conveying the pilgrims. Notwithstanding that there was no epidemic or cholera outbreak this year, the mortality among the pilgrims on shipboard was very large.—*Lancet*. July 24th, 1894.

The State Board of Health will meet (in extra session) in Salisbury, during the second week in September. The exact date has not been fixed.

HEALTH OF WILMINGTON.—The following is the mortuary report for Wilmington for the month of July, 1894 :

	Whites.	Col.	Total
Population.....	9000	13000	22000
Deaths.....	8	29	37
Death-rate represented..	10.7	26.8	20.2

Meteorological.—Mean temperature, 78°; highest temperature, 91°; lowest temperature, 62°; clear days, 10; partly cloudy, 9; cloudy, 12; days in which rain fell, 15; total precipitation, 9.08 inches; mean barometer, 30.09.

Reading Notices.

FERRATIN AS A TONIC AND RECONSTRUCTIVE.—We have been favored with an advance manuscript copy of a statistical report of the effect of Ferratin in actual practice, furnished by Dr. Jacquet, of the City Hospital, Basel, an author and specialist of international repute. The report is in the form of a condensed tabulated exhibit, giving age and occupation of patient, date of entry and of last observation, progressive number of red corpuscles in blood, content of hæmoglobin, dosage, and general remarks on symptoms, condition and end result in increased weight.

It is an interesting report, and when published will make a deep impression and promote the general introduction of

this new food and blood tonic, Ferratin, more than any other statement or report yet published.

One case may be here detailed, as indicating the thoroughness of the trials and report :

V.—Emily B., 18 years, servant; admitted November 9. Chlorosis; palpitation of the heart, great exhaustion, dizziness, headache, oppression, appetite indifferent; red blood-corpuscles, 4,312,000; hæmoglobin, 39.5. Ferratin administered in 1 gm. doses three times daily for five weeks.

At the end of second week: record of constant improvement; still pale; no venous murmur; normal condition very good; excellent appetite.

At the end of five weeks: red blood

corpuscles, 5,212,000; hæmoglobin, 77.6; looks splendid, with rosy cheeks and every appearance of good health; increase in weight, 3 kilo (about 6½ pounds).

Ferratin was the subject of a paper read in the Section of the International Medical Congress at Rome last month; the report was favorable and based on facts, and it called forth a surprising number of confirmatory comments. The outlook is that in Ferratin we have received a notable addition to our resources of blood restorative and nourishing agents.—*Notes on New Remedies.*

HABITUAL MISCARRIAGE.—Dr. Rasquinet, Jupile, near Liege, Belgium, says: "I tried Aletris Cordial in the case of a woman who had had several miscarriages at the end of five months, and who is now again pregnant, having reached the seventh month. Thanks to Aletris Cordial."

HÆMOFERRUM, OR BLOOD IRON, is the name given by Messrs. F. Stearns & Co., Detroit, Mich., to a new preparation of hæmoglobin, recently introduced by them to the *Materia Medica*, under claims that it is a natural proteid compound of iron, perfectly soluble, pleasant to the taste, odorless, permanent, with a neutral reaction, non-styptic, non-irritating, non-constipating, and furnishing a blood-like color in aqueous solution, which proves that it is in the condition of "oxygenation" characterizing oxyhæmoglobin. They claim spectroscopic analysis of this article shows it to be oxyhæmoglobin in an almost pure condition. In fact, it seems to be the purest form of hæmoglobin yet offered to the profession. The slight impurity present can hardly be called an impurity, as it is a form of hæmoglobin known as methæmoglobin. Practically speaking, therefore, HÆMOFERRUM (Stearns') is pure hæmoglobin. For many years chemists have been at work in an attempt to obtain some method whereby hæmoglobin could be isolated and made into a permanent, marketable commodity. At last this desirable result seems to have been obtained, and Messrs. Stearns & Co. are now ready to supply

a demand which, judging from past history, is an enormous one. They offer to supply samples and literature free to all inquiries, and request that their preparation be given a thorough trial by the medical profession.

LIQUOR SEDANS.—This I find to be a utero-ovarian sedative and anodyne of exceptional value, as in my hands it has produced the most brilliant and flattering results, far exceeding my most sanguine expectations.

Mrs. W., æt 44 years, and approaching the menopause; very anæmic, thin and of a nervous temperament; much anorexia at times; habitually constipated; complains often of headache and palpitation, with frequent but scanty micturition; menstruation very irregular, returning every three to five weeks, and lasting from two to four days; flow small in amount and nearly colorless; attended with violent pains in the lumbar region, groins, with general tenderness over the hypogastric region; no organic lesion of the heart, simply functional as a result of other lesions.

Upon examination, I detected retroversion of the uterus of the second degree, and a profuse leucorrhœa. Had previously almost exhausted the *materia medica* in seeking a remedy for her relief; had given Hayden's viburnum comp., aletris cordial, fluid extract viburnum prunifolium, cannabis Indicæ, etc. As a *dernier ressort*, I ordered Liquor Sedans, 1 drachm four times a day, to be continued during menstrual period; Fowler's solution with bromides; and an injection for the leucorrhœa; also placed a Thomas' retroversion pessary. Saw her four days later; met me with a smile, and remarked the "new medicine" was going to "cure" her. Her improvement has been steady and rapid; appetite good; menstrual epoch unattended with pain; discharge higher colored and more profuse, lasting from five to six days, and more regular than before for years. Leucorrhœal discharge disappeared; does not suffer with palpitation or headaches. Such is my happy success with that grand therapeutic agent, Liquor Sedans.

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a few figs are used, but to distinguish it from all other laxatives, and the United States Courts have decided that we have the exclusive right to apply this name to a laxative medicine. The dose of

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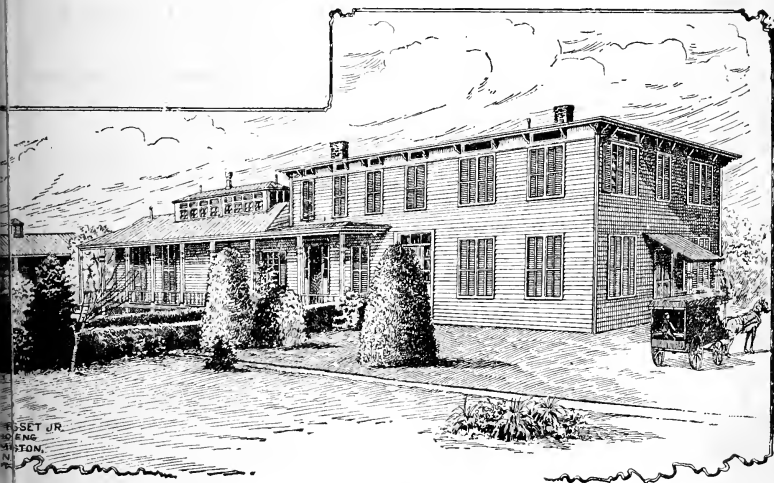
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Dr. William Thompson Lusk, of *New York, Professor of Obstetrics and Diseases of Women and Children in the Bellevue Hospital Medical College*, in "*The Science and Art of Midwifery*," after speaking of the value of the "milk diet" in Puerperal Eclampsia, advises that, where the diet is badly supported by the patient, she should be advised to drink freely of the naturally Alkaline Waters possessing mildly diuretic properties, and suggests the Buffalo Lithia Water and others.

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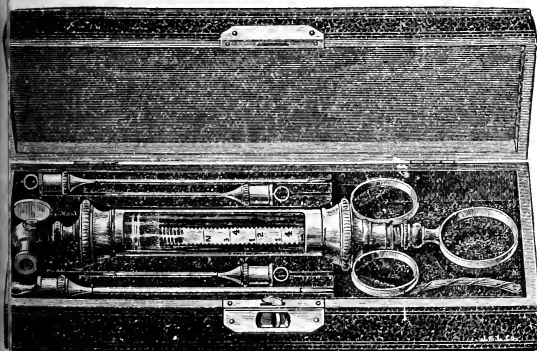
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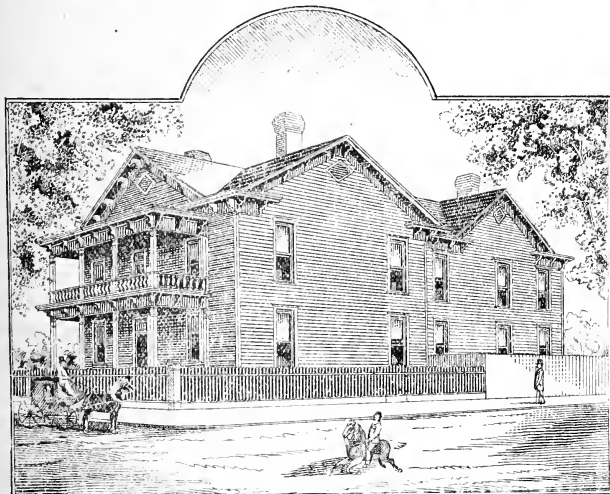
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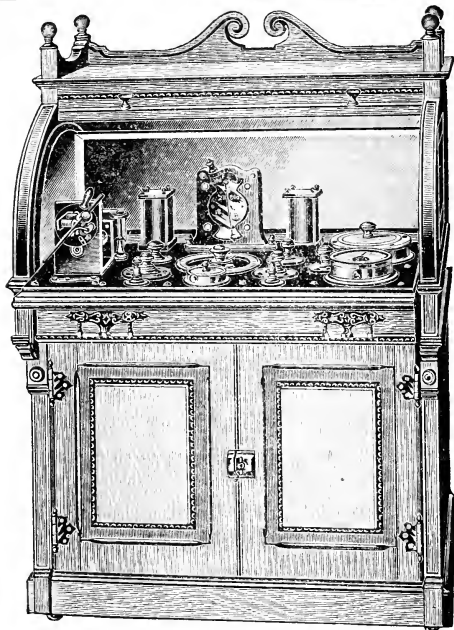
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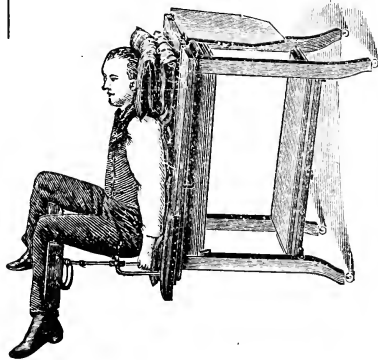
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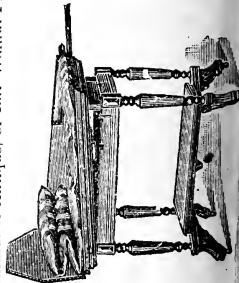
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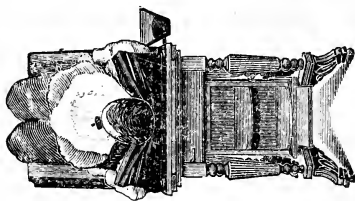
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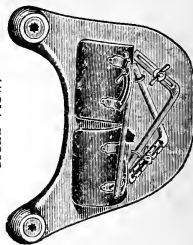
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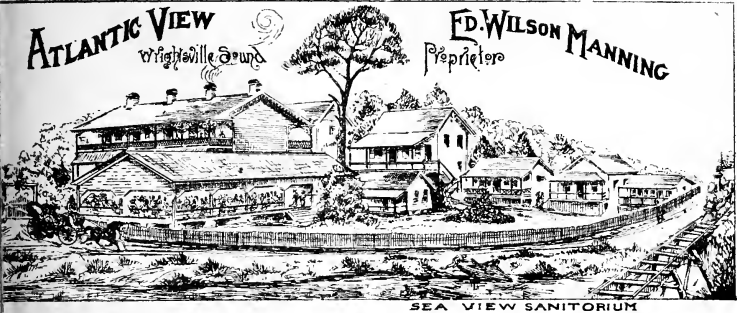


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Table of Contents, - - Page 5.
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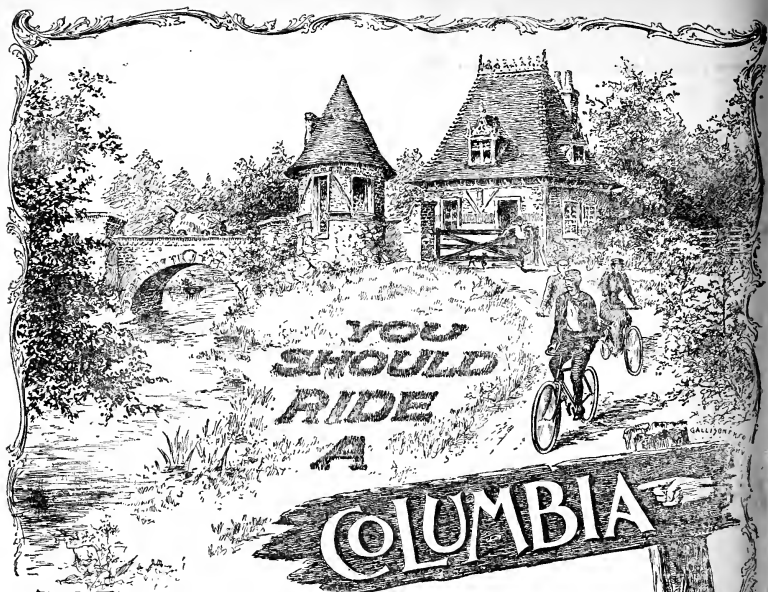
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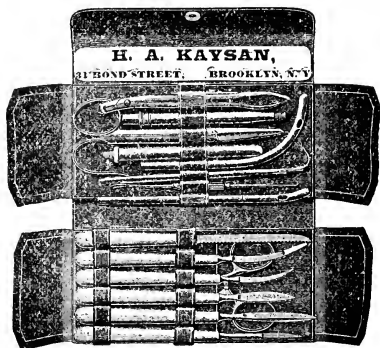
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Table of Contents.

Original Communications :

The Surgery of the Kidney.— <i>Louis McLane Tiffany, M. D.</i>	99
Hydrotherapy.— <i>R. L. Gibbon, M. D.</i> ;	105
A Pathological View of Some of the Acute Specific Fevers.— <i>Thomas M. Riddick, M. D.</i>	113
Family Predisposition to Intestinal Hemorrhage in Typhoid Fever.— <i>W. T. Pate, M. D.</i>	119

Selected Papers :

Contagion in Tuberculosis.— <i>George A. Evans, M. D.</i>	124
Sad Mishaps with Animal Extracts.— <i>Lukianos</i>	127

Abstracts :	129
-------------------	-----

Editorial :

The Cause of Death from Chloroform..	135
Gastroplicatio	136
Board of Health Bulletins Second-Class Matter.....	136

Reviews and Book Notices :

An International System of Electro-Therapeutics, for Students, Practitioners and Specia'ists.— <i>Bigelow</i>	137
Charaka Samhita.— <i>Avinash Chandra Kaviratna</i>	138
One Hundred Years of Business Life.— <i>W. H. Schieffelin</i>	138
Diseases of the Skin ; An Outline of the Principles and Practice of Dermatology.— <i>Malcolm Morris</i>	139
Obstetric Surgery— <i>Drs. Egbert H. Grandin and Geo. W. Jarman</i>	139

Correspondence :

Glycerine in Dropsy.— <i>Herbert A. Royster</i>	140
---	-----

Notes of Practice :	141
---------------------------	-----

Miscellaneous Items.....	143
--------------------------	-----

Obituary :	145
------------------	-----

Reading Notices.....	146
----------------------	-----

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Fairchild Bros. & Foster.....	Cover	1	Tulane University.....	17
Parke Davis & Co.....	"	1	University City of New York..	18
Pope Mfg. Co.....	"	2	Medical College of South Carolina.....	19
Mr. Fellow.....	"	3	University College of Medicine.....	20
New York Pharmacal Association.....	"	4	St. Luke's Home	20
W. H. Schieffelin & Co.....		1	E. V Richards.....	20
Battle Creek Sanitarium.....		2	Wilmington City Hospital.....	21
H. A. Kaysan.....		2	Lambert Pharmacal Co.....	22
C. F. Boehringer & Soehne		3	Mariani & Co.....	23
Sharp & Dohme.....		4	Walker-Green Chemical Co.....	23
Henry K. Wampole & Co.....		5	Frederick Stearns & Co.	23
The Sanitarian.....		6	Thos F. Goode.....	24
Virginia Pharmacal Co.....		7	N. Y. Pharmaceutical Co.....	25
Queen & Co.....		8	Bartlett, Garvens & Co.....	25
Vaccine Virus.....		8	Harris Lithia Water.....	26
Antikamnia Chemical Co.....		8	Maltine Mfg. Co.....	27
Peacock Chemical Co—Sultan Drug Co....		9	H. O. Hyatt, M. D	27
Chas. Marchand		10	Dios Chemical Co.....	28
Wm. R. Warner & Co.....		11	McIntosh Battery Co.....	28
Cal. Fig Syrup Co.....		12	Scott & Bowne.....	29
Od Chemical Co.....		13	Battle & Co.....	29
Julius Fehr, M. D.		13	Rio Chemical Co.....	30
Kentucky School of Medicine.....		14	Seaboard Air Line.....	31
Bellevue Hospital Medical College		14	Daggett Table Co.....	32
Chattanooga Medical School.....		14	Listol Chemical Co..	33
University of North Carolina—Med Dept..		15	Svapnia.....	34
North Carolina Medical College.....		15	C. N Crittenton.....	34
University of North Carolina.....		15		
Quaker City Baking Powder Co.....		15		
University of Maryland.....		16		

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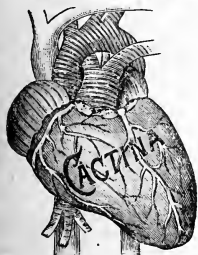
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THE SURGERY OF THE KIDNEY.*

LOUIS McLANE TIFFANY, M.D., Professor of Surgery in the University of Maryland.

The Surgery of the Kidney is so large a subject that it cannot, of course, be treated more than superficially in the time allotted to one paper; hence I shall consider those points which seem to offer opportunity for differences of opinion and varieties of treatment by surgeons. It may be accepted as a fact that in the human body bilateral organs are more than doubly sufficient for the carrying on of life; therefore, not only any one of two similar organs, as kidneys, eyes, arms, legs, etc. be removed without impairing existence, but even the remaining organ may be more or less damaged and yet life be carried on

comfortably. Just to what extent a single remaining kidney may be impaired and yet life continue, is uncertain. Probably the amount of urine secreted daily is a fair index. Any paper on the surgery of the kidney at the present day must take into consideration the influence exercised by disease of the kidneys on the various operations of general surgery. The effect of anæsthesia on the healthy kidney must be considered.

I have had the urine of cases examined before and after operation in regard to specific gravity, albumen, sugar, acidity, as well as microscopically, in diseases not connected with the urinary system, the kidneys, so far as I could make out, being healthy; the result in 150 cases

Read before the American Surgical Association.

has been noted. In very few cases was albumen present after, and not before, the operation—three cases. Every case of railway accident and in many other accidents in which the patient's body had been exposed to the air for a certain time before coming to hospital, showed albuminous urine. In each case the patient had been transferred a certain distance in order to reach hospital—in some the accident had occurred six or eight hours before, in others within an hour. The railway injuries were all crushes. One gun-shot wound of the belly, with nine perforations of the intestine and four of the mesentery showed a faint cloud of albumen, which, on recovery, disappeared; this patient's body was not exposed until operated upon. Another case of gun-shot wound through the belly came under my observation, but inasmuch as the kidney was wounded, the record is not offered. Operation has not been deferred on account of the presence of albumen. Where albumen was present together with casts, etc., in cases of accident, the patient has been treated as though the kidneys were healthy, for I am unable to say always whether the condition of the urine may not be the result of the violence for which the patient comes to the operating table. In one patient sugar appeared after operation, not being present before; this was a case of sarcoma of the lower jaw. Chloroform was used in the operation, jaw being removed with the tumor. Two cases showed faint traces of sugar—improved under treatment, were operated upon and the sugar did not re-appear after operation; the wounds healed well. One case in which urine was decidedly saccharine improved under treatment, was operated upon, and a week after the operation the sugar increased and the healing practically ceased, the wound remaining in *statu quo*

when she left the hospital. Cases of advanced diabetes I have not operated upon—it is well-known that such cases do badly. In one case the urine changed from acid to neutral and in another from acid to alkaline, during anæsthesia and operation—the first an operation for hemorrhoids, the second for coxalgia—adults both. The amount of urine passed by patients in the twenty-four hours after operation is decidedly diminished in quantity, the specific gravity being higher than before operation. On one case after an operation for varicocele secreted no urine for twenty-four hours another patient secreted one ounce only in the twenty-four hours after operation. In the first of these cases chloroform was given, in the second ether.

Albumen, with a few hyaline casts, do not consider a cause for non-performance of a surgical operation. The amount of albumen in some of the accident cases which did perfectly well after operation was extremely large. I have considered that the amount of urine secreted during the twenty-four hours is a far better index of the patient's ability to bear a surgical operation than the presence of albumen in non-traumatic cases.

The presence of casts, epithelial, blood, sugar, or other indications of diseased kidneys, are to be placed in a category distinct from albuminous casts and call for medical treatment proper for the condition of the kidneys present.

One form or another of malarial poisoning is often met with in the country bordering on the Chesapeake Bay, and examination of the urine has occasionally led me to defer operation temporarily. Malarial hæmaturia I have seen a number of times, urine containing blood and albumen also. It is needless to say that the urinary examination is at once to be supplemented by a search for plas-

um malariae in the blood. A history of intermittent or remittent fever is often wanting; the patient will have a pale complexion, which may wrongly be attributed to the affection for which surgical relief is sought. It is proper, when possible, to cure the malarial poisoning before subjecting the patient to operation. Quinine, arsenic and nuxvomica in combination have given me good results. A surgical operation undertaken before the patient has passed on from the malarial influence will probably be followed by tedious convalescence, the temperature high and the pulse early normal—a picture not unfamiliar to me.

Wounds of the Kidney.—There seems to be no good reason why the kidney should be separated from the rest of the body and demand different surgical treatment. There does not seem to be any reason why a kidney wounded should not be treated as a wounded muscle or bone, etc. A kidney wounded should be exposed and sutured or drained or tamponed with gauze, or a piece of it excised when injured beyond repair, as the case may be, and not the whole kidney sacrificed. Drainage is very easily supplied to a kidney, the patient resting on his spine. In a recent gun-shot wound of a kidney I opened freely through the back, explored the kidney, packed lightly with gauze and all went well, the urine passing through the wound during a few days only.

Nephrectomy, either partial or complete, is accepted as a surgical procedure; the trans- or post-peritoneal route having each its advocates. Probably no one method is always applicable. My personal preference is for the transverse incision, the peritoneum unopened when possible, being pushed towards the middle line.

Abbe's* paper in the *Annals of Surgery*, January, 1894, will repay perusal.

Nephralgia.—Nephralgia due to acute suppuration, to stone, etc., it can be understood will be cured by removal of the cause, yet in certain cases the cause remains undiscovered, but nephrotomy cures. I have referred to this subject in a paper in the *Transactions* for 1889.

The following case in the practice of Dr. Geo. Ben. Johnston, Professor of Surgery in the Richmond Medical College, seems to support the view therein expressed. (Personal communication.)

"J. S., of Irish birth, 65 years old, carpenter by trade, consulted me in September, 1891. In early life he followed the sea. Had yellow fever in 1850 in Colon, S. A. Ten years ago he was operated on for piles by ligature and cured. He had no other serious sickness and was temperate in his habits. For some weeks he had suffered pain in the right loin. The pain was variable in intensity, but always present, sometimes exceedingly severe. Associated with it were gastric disturbances, irritability of the bladder and now and then the retraction of the right testicle. Frequently the pain followed the course of the ureter and was occasionally felt in the glans penis. There was tenderness on pressure over the kidney. Posture—assuming an attitude which would relax the muscles of the right loin, brought some relief. There was some vesical irritation, enough to justify the sounding of the bladder, with negative result. The desire to pass water was quite pointed. No blood or pus in the urine. Frequent and pains-taking examinations

*Dr. Abbe informs me that both the cases of sarcoma of kidney in children continue well—one after two years and one month, the other after one year and six months. A third case, operated on with similar technique, is doing well after six weeks.

of the urine were made, both by me and Mr. Hugh Blair. These examinations, to a certain extent, bore out the opinion I had formed of the case, namely, that I had to deal with a renal calculus. When I became convinced of this, nephrolithotomy was determined on. The operation was made November 25th, 1891. It was conducted under the usual antiseptic precautions. The incision by which the kidney was exposed was a V-shaped cut with its apex upwards. On exposure the kidney appeared larger and firmer than I have usually seen. Palpation revealed nothing. Numerous punctures with a needle failed to detect the presence of a stone. Through each of the little wounds made with the needle a smart little geyser of brilliant blood welled high up and the punctures continued to bleed freely. Being now convinced that I had proceeded on an erroneous diagnosis, and, recalling reported cases of 'capsule-splitting' for painful kidney, I resolved to practice this procedure here. Consequently a free split was made in the capsule the whole length of the kidney. This wound gaped widely and the kidney tissue bulged far out. Immediately the bleeding from the needle-punctures ceased. The flesh and skin wounds were carefully closed, leaving in a small drainage-tube.

"On the evening of the day of operation, after the effects of the anæsthetic had entirely passed off, the patient expressed himself as much relieved. His recovery from the operation was wholly satisfactory. The symptoms simulating calculus disappeared. The pain promptly abated and never returned, and with its disappearance the other distressing symptoms likewise subsided."

Another case, in the practice of Dr. I. Ridge Trimble, Professor of Anatomy in the Woman's Medical College of

Baltimore, is as follows: (Personal communication.)

"E. N., white, male, aged 28 years, farm laborer, suffered greatly from pain in the region of the left kidney. Blood in the urine was occasionally seen and pus. The urine was acid and contained oxalate of lime crystals. There was frequency in passing water, much tenesmus accompanying the act. No urethral stricture existed, and examination of the bladder by sound elicited no information. Suffering continued for 18 months and the patient lost flesh.

"February 19th, 1894, the kidney was freely opened and explored—nothing was found.

"The operation wound promptly healed. Pain did not return, neither did the other distressing symptoms referred to the bladder. The man is entire well and able to do day labor."

Bladder symptoms are mentioned prominently in the two preceding cases and disappeared with the kidney incision. This reflected pain and relief after nephrotomy is evident in the following (personal) history:

A. H., male, colored, aged 30 years. Came under my care April, 1893, suffering with general tuberculosis. He was tormented very often with much pain—a straining, urine acid, containing blood and pus corpuscles. He was much emaciated. Failing to give relief to bladder symptoms by medicines, I opened the bladder above the pubes and introduced a tube; the urine drained freely away, but the tenesmus and cystic pain continued, notwithstanding the presence of the tube, which was adjusted so as not to press against the interior of the bladder. Supra-pubic drainage giving no relief, I opened the kidney through the loin, and at once the bladder symptoms disappeared. The man lived a number of weeks dying of tuberculosis.

A post-mortem examination was not allowed.

Nephritis and pyelo-nephritis, the so-called surgical kidney, is generally met with by the surgeon as an inflammation advancing upwards from urethra and bladder, due to the presence of bacteria; the bacteriology of the trouble in question has yet to be written. There does not seem to be any good reason to suppose that the ordinary bacteria of supuration do not affect the urinary tract in its whole extent, and so it is probable that they will be found there; in addition to which, as the subject is more thoroughly studied, other bacteria, as the colon bacillus, will probably be noted more and more frequently. In suppurative nephritis beginning in the kidney the most frequent local cause is stone; in other cases it will usually be the result of general sepsis. The diagnosis is usually not difficult when the disease is far advanced. In the early stages of the trouble the diagnosis is not easy, and especially is it difficult to recognize whether one kidney is affected or both; and here it is that the cystoscope offers great possibilities. Direct exploration of the ureters in women is an accomplished fact, but the anatomy of the male ureter interposes difficulties to physical examination not yet overcome. Lack of appetite, irregular temperature, irregular bowels, nervousness, sleeplessness, a rough skin, etc., etc., are important, but a moderate amount of urine secreted daily and an habitually low bodily temperature independent of the condition of the pulse, have been to me danger signals of very great importance; to this is to be added microscopical evidence of kidney degeneration. The treatment before operation consists in exciting the kidneys to secrete, and for this purpose infusion of digitalis, acetate of potassium, infusion of buchu,

much water and saline purgatives are most important. Of course, acid urine containing pus suggests pyelo-nephritis very strongly. It is my habit not to operate until the patients kidneys are acting well. After operation I have found that, in addition to the previous treatment, strychnine hypodermically has been efficacious. After operation I have found a hot air bath to be followed by unfavorable results in chronic cases; in acute cases it is beneficial. I believe where an operation on a suppurating bladder is called for and there is evidence of disease of one kidney or decided pain of one kidney suggesting suppuration, that the kidney should be operated upon at the same time as the bladder, being cut open or excised, as the condition of affairs seems to warrant—nephrotomy or nephrectomy. On two occasions I have had to do this in stone in the bladder—existing once in a man, once in a woman, the lithotomy being done and the kidney opened at one and the same sitting. All went well in each case. In another calculus case (bladder), within two weeks after removal of the stone, acute suppurative inflammation in one kidney took place during my absence from the town. I returned to find the patient moribund. Another patient within a few months after removal of a large stone from the bladder suffered from acute suppuration in one kidney. The patient declined interference and died. It has occurred to me to operate upon one patient for suppuration in both kidneys, on one side in the kidney pelvis, on the other in the kidney cortex. The history is appended. The very severe pain elsewhere than in the kidney is worth noting.

J. K. M., age 32, living in a Western city, an active business man, consulted his family physician in Baltimore, Dr. Wm. T. Howard, and was by him refer-

red to me for treatment. His history is as follows: During the early months of 1889 he consulted a physician in the town in which he was engaged in business for some obscure trouble connected with the passing of urine. On several occasions his physician explored his urethra with a sound. On the last occasion he experienced great pain. Within a few days of this time J. K. M. suffered from pain in the bladder, together with great frequency in passing water. This, however, lessened in intensity. Early in March of the same year pain in the left side under the last rib was complained of. His appetite diminished and he suffered from daily chills. This was in April. Fever and sweating after the chills were not noted. It was the end of April when there was pain in the groin in the left side, and the thigh was flexed on the pelvis slightly, causing the patient to limp.

May 12th J. K. M. became cognizant of a lump below the border of the ribs on the left side. The lump, when noticed, seemed to be about the size of a hen's egg. Up to this time he had lost much flesh.

May 15th he arrived in Baltimore and at once consulted his family physician. I saw him the same day.

May 16th I examined him and found his condition as follows: Lying upon the back in bed there was to be felt on the left side, in the region of the kidneys, a lump apparently 3 inches in diameter, hard and indistinctly fluctuating. Pressure upon it caused pain. It was immovable on respiration and did not change position when the patient moved from side to side. Pressure in the loin from behind forward, raised the tumor towards the front of the body. Pulse 118, temperature $102\frac{1}{2}^{\circ}$, respiration accelerated, urine acid and contained pus, bowels constipated.

He was kept quiet to recover from his railway journey of thirty-odd hours, which had fatigued him greatly, and on the 19th he entered a private room in the University Hospital. At this time the tumor had increased decidedly downwards as well as forwards. Fluctuation was very distinct and it was plain that I had to deal with a nephritic abscess.

May 20th, under ether, I opened this abscess through the loin, making the usual incision, as if to uncover the kidney. About eight ounces of pus was evacuated from the kidney pelvis. The night of the operation his temperature was 104° , but the following evening the temperature was normal and the pulse 90. The large cavity in which the pus had been contained was kept clean by irrigation. Very great pain was complained of in the left thigh during the next ten days, and the patient appeared to be unable to use the limb. The pain was excruciating on several occasions, requiring the use of morphine hypodermically.

June 20th my patient was able to go to the mountains, where he recovered health and strength rapidly.

By September 15th J. K. M. went about everywhere. Could walk a mile or more at a time, and was able to drive about indefinitely without fatigue. There was no trouble about the urinary organs, so far as the patient could tell. Dr. McComas, in whose care the patient was, still found, however, pus in the urine. J. K. M. thought that he strained his right side during the month of September, and, with his previous experience, he examined carefully for a lump, and by the end of September did find one on the right side in a corresponding position to the one which he had had on the left.

During the month of October he complained of irregular, chilly sensations,

with some pain in the right side in the region of the tumor last noted. His appetite became poor and he returned to Baltimore November 9th. He suffered from bronchitis on his arrival in Baltimore. He was seen by Dr. Howard and myself. His physical condition was much better than it had been in May; complexion clear and muscular system better developed. His digestion was poor and he complained of pains in the right kidney. His temperature was 110° , pulse 100, respiration normal, urine contained a very little pus, acid.

By November 22d his lungs were in good order, his temperature 99° , pulse 80; so that day I operated on the right kidney, believing that I had to deal with pus. Physical exploration showed in the region of the right kidney a tumefaction which was hard and elastic. Fluctuation was not recognized. Under

ether I exposed the kidney by the usual incision in the loin. The kidney was easily recognized and was freely movable in the perirenal connective tissue. It rose and fell more than an inch in respiration. The lower end of the kidney, when grasped in the finger, was decidedly enlarged and fluctuated. A free incision being made into it, an ounce of pus was evacuated and the rather free hemorrhage following was arrested by pressure. A drainage-tube was inserted into the kidney substance and the wound closed in the usual way. It was found necessary, the better to expose the kidney, to partially divide the quadratus lumborum.

The progress of the patient was uneventful. He returned to his business early in the following year, apparently well. The urine was normal when he left Baltimore.

HYDROTHERAPY.

By R. L. GIBBON, M.D., Charlotte, N. C.

(Read before the North Carolina Medical Society, May 17, 1894.)

Water, fortunately for all living organisms, is so common an object upon this planet of ours that a great portion of the public, including not a few medical men, are disposed to look with a sort of contempt upon any effort to make use of it as an independent therapeutic agent, capable of producing precise physiological effects.

In fact, many of our fellow-citizens show such marked neglect of its employment as a hygienic and sanitary agent, that it is not surprising they should be unappreciative of its medicinal effects. That water does possess such curative properties is shown by the recorded

experience of the most eminent physicians of ancient and modern times.

An exhaustive study of its physiological action has within late years placed water in the list with other rational therapeutic agents, and largely removed the obloquy of being a purely empirical remedy.

Any one studying for the first time the medical history of water would be struck by the immense quantity of literature at his disposal, extending back to the earliest medical writings. Hypocrates, Galen, Celsus, Paracelsus and other worthies of remote periods, too numerous to mention, were enthusiastic

advocates of the water-treatment; while in every century and in almost every civilized country this agent has formed a very important part of therapeutics, whether in the hands of ignorant quacks, or used by the most distinguished of the regular profession.

As has been well remarked by the great apostle of Hydrotherapy in our own country, no other remedy illustrates so well the changes, one might say the fashions, of medical practice, for, while at one time we find the medicinal value of this remedy receiving the highest professional recognition, at another period the practice lapses into oblivion, only to be again brought forward by some enthusiastic advocate.

There can be but little doubt that in the past much of the opposition the water-treatment received at the hands of the medical profession originated in its almost entire monopoly by charlatans, or at least uneducated persons. To this day, in fact, the term hydropathy savors of quackery.

The most notorious, and by far the most successful, of the hydropaths was Priessnitz, an uneducated peasant, who flourished about the year 1840. The history of this man is almost without a parallel. Beginning in a small way, the fame of his cures spread far and wide, and it has been stated that as many as 75,000 people came to him for treatment during a period of 20 years, and of this vast number only 39 died. The government built roads to accommodate the multitudes of sick people who flocked to his institution, and an appreciative public erected monuments commemorative of his services, while the man himself died possessed of several millions. We read of few or no instances of similar honors bestowed upon a member of the regular profession. A due examination of Priessnitz's methods

will disclose great ingenuity in the mechanical arrangement and application of his remedy, while he was very far from neglecting such auxiliaries as diet, exercise, etc.

The water treatment did not always have such successful exponents among the irregulars, however, and the majority were very much after the style of Dr. Sagrado, spoken of in "*Gil Blas*," whose sole method of treatment in all diseases, in whatever stage of development, consisted of the free abstraction of blood and an unlimited use of warm water internally. Under this antiphlogistic plan, the Doctor himself admits that recovery of the patients was excessively rare.

The best known of the earlier English writers on the subject of Hydrotherapy is James Currie, the biographer of the poet Burns. His book entitled "*Currie on Water*," appeared about the latter part of the last century, and at that time attracted considerable attention. It may be read with profit, even at this day, for, in addition to the scientific interest which attaches to the work, the style of composition is equaled by few medical writers. Where, for instance, can be found a more forcible or beautiful sentence than this: "The most eminent physicians, in every period of the world, impatient of observing and delineating, have been eager to explain and even to systematize, and the science of life owes its corruption more to the misapplication of learning than even to the dreams of superstition." "To the weak and ignorant, presumption is as natural as doubt is intolerable, and with such belief is almost always a creation of the imagination."

It would be well, in attempting to arrive at a correct judgment of the place hydrotherapy is to occupy in therapeutics, to carefully base our conclusions upon the facts of the case, and

on the mere creations of our fancy or prejudices.

Currie used salt water by preference, which was dashed upon the patients from buckets, and, while this form of treatment may appear to us crude and decidedly heroic, it seems to have given very satisfactory results in his hands, especially in a number of typhus and typhoid fever cases reported in his book. The practice does not seem to have attained very great popularity, however, and nothing important was done in the matter, until "Brand, of Stettin," published, in 1861, his remarkable statistics on the cold bath treatment of typhoid fever.

Physiological Action.—A formal and minute discussion of the physiological action of water used externally and internally would far exceed the limitation of this paper, and it will only be necessary to mention, briefly, some of the more prominent physiological effects.

Most of us are familiar with the principal action of water taken internally: besides the effect upon the bodily temperature, considerable quantities of water taken into the stomach exercise reflex influence upon the heart and blood-vessels, which varies with the temperature of the water used. Cold water, for instance, very perceptibly increases the blood-pressure, while warm water has an entirely contrary effect and lowers the tension in the vessels. The free imbibition of water stimulates glandular secretion, increases the urinary flow, and, so, it is said, the solid constituents of the urine.

The essential physiological effects of water, externally applied, vary with the temperature and the method of application. Obviously, also, this effect must be materially influenced by the duration of the application. On this account we have in water a very flexible remedy,

capable of producing, under different circumstances, entirely opposite results.

The two extremes of temperature meet, and excessive cold, like excessive heat, is painful; both are nerve-irritants and productive of lowered vitality, resulting in death when carried beyond certain limits. Clinical experience and the rapidity of the effect produced, show that thermic irritants exert their influence through the nervous system. This fact, as we shall see, is a matter of some importance.

Cold applied externally produces a contraction of the superficial blood-vessels, to be followed, in a short time, by capillary dilatation and an increased amount of blood; the contraction and dilatation in the veins being less rapid than similar changes in the capillaries, it follows that there is an increased resistance to be overcome by the blood-current, resulting directly in temporary congestion; while internal and remote parts receive an unusual amount of blood, under increased pressure, from the establishment of a collateral circulation. It is in this physiological action of water, thus applied, that many of its therapeutic effects are explained. This unusual amount of blood circulating with increased tension through internal organs must necessarily influence in the most favorable manner conditions characterized by passive congestion, or a languid circulation with the consequent accumulation of effete material.

The difference in the effects of hot and cold water is found in the fact that cold produces an *active* hyperæmia with increased tension, while heat is productive of a *passive* hyperæmia with a relaxation of the vessels.

It is a common fallacy with those who have made no study of the effects of heat and cold upon bodily temperature, to suppose a *cold bath* will reduce a fever

temperature more rapidly and decidedly than a warm or hot bath. This supposition, which appears at first sight natural, does not seem to be in accordance with clinical experience. Cold applications undoubtedly cool the surface, but the internal temperature is much less influenced than by a moderately warm bath. This important fact has been mentioned by Currie, who states that in his experience the temperature was more surely reduced by warm affusions. It is now admitted by scientific writers on this subject that the colder the bath, the less intense its power of reducing internal temperature. An explanation of this apparently anomalous fact is found in the compensatory powers of the human organism by which it is enabled to resist the temperature effects of external agencies, and our ability to affect *directly* the internal temperature of the body is very slight.

It should be remembered in making observations on this point, that the thermometer should be used in the rectum.

Technique.—While hydrotherapy has been liberated from the trammels of useless and perplexing methods, it is absolutely essential for the attainment of success in its use that we observe with accuracy and precision such rules as an understanding of the physiological action points out. To merely sprinkle a fever patient with cold water, until the temperature falls, or to attempt to irrigate the intestines in the same way one would give an anema, is to ignore in toto the ordinary precautions which experience has shown to be necessary. Haphazard methods of procedure are rarely successful anywhere, and certainly not in hydrotherapy.

While this knowledge of technique is so important for the successful employment of water in diseases, I will not consume your time by attempting to

describe in detail the various forms of application, such as the wet pack, the Sitz bath, the douche and numerous others. It will only be necessary for the purpose of this paper to fully describe the cold bath as employed by Brand. This is perhaps the most important of all the external uses of water, and as it threatens to become the standard treatment of typhoid fever, it is well to have a clear idea of the manner of procedure.

It is necessary to remember in this connection that a prompt reaction of the patient after the bath is of prime importance: should the organism fail to respond favorably, the application is more likely to do harm than good. The most certain means at our command for bringing about this reaction consists in friction to the surface of the body. This simple precaution, appears, however, to have been often neglected, where every other detail of the treatment was carried out.

Brand's method of giving the bath, as it is described in some of our latest text-books, is about as follows: When ever the temperature reaches a certain point, say 102.5° F., the patient is stripped, wrapped in a sheet and carefully placed in the bath, the water being at a temperature of 65° or 70° F. Cold water is poured over his head, as he gets into the tub, to diminish the shock and he is then submerged to the neck. During the whole period of his immersion he is briskly rubbed, and cold water poured over his head at intervals. He is then taken out, wrapped in a sheet without drying and covered with blankets. It is customary to give a stimulant before placing the patient in the water. In private practice the water at the beginning of the bath is often used warmer than in the strict Brand bath, being afterwards cooled to the

equisite degree by the addition of ice or cold water. Brand furthermore insists that the results of this treatment in typhoid fever are far better where systematic bathing is begun prior to the fifth day of the disease, even going so far as to declare that every case will recover where this rule of early bathing is carried out.

In confirmation of this statement he reports the astonishing number of 2,150 cases treated before the fifth day, in which not a death occurred. Such phenomenal results command the attention of the civilized world, and, while there is a tendency to question the accuracy and fairness of foreign statistics, I am not aware that even the most skeptical have succeeded in discrediting the figures given above. Brand's latest statistics on this question are equally startling—of 1,227 cases treated by himself and several associates, only 12 died, giving a mortality of 1 p. c. All of the fatal cases received treatment after the fifth day of the disease.

While other observers, especially in England and America, can show no results comparable with those of Brand, the hospital reports where this plan of treatment is carried out with more or less completeness present with very general uniformity, a greatly decreased mortality rate.

At the German Hospital in Philadelphia, Dr. J. C. Wilson reports 300 cases of enteric fever treated with the cold bath during the three years ending January 1st, 1894. Of this number 20 proved fatal, being a death-rate of 6.6 p. c. The last report, that for 1893, was based upon 74 cases, of which 8 died, giving a mortality of 10.8 p. c. Here, also, the fatal cases were all received into the hospital after the strategic fifth day.

By an analysis of his cases Dr. Wilson

thinks the dictum of Brand, that none of the cases in which the treatment is instituted prior to the fifth day are likely to terminate fatally, is partially borne out.

In the last report of the Johns Hopkins Hospital on typhoid fever, Dr. Wm. Osler places the mortality, since the introduction of bath-treatment, at 7.1 p. c. It may not be without interest to give in detail the method of using the bath in this institution:

"1. *Details of Method.*—The patient receives a bath of from 65° to 70° every third hour, when the temperature, taken in the rectum, registers 102.50° or over. The temperature of the bath varies somewhat with its antipyretic influence; thus, when the fever is very slightly reduced by the bath at 70°, a lower temperature is employed. The temperature is taken every two hours in the rectum, and if it rises above the point mentioned, the bath is given. The length of time the patient remains in it varies somewhat, but, unless otherwise directed, the bath is of 20 minutes duration. The bath-tub of which there are several light portable forms, is wheeled to the side of the bed, around which a ward-screen is placed. In all instances the patient is lifted from the bed into the bath. There is an arrangement for the support of the back of the patient, either a comfortable padded or sloping platform, or a properly adapted water-cushion. The water is deep enough to entirely cover the chest. If thought necessary, the patient receives a small quantity of whiskey or a hot drink of some kind. He is lifted into the bath, covered with a sheet or with a folded napkin around the loins. A cloth wrung out of ice-water is placed upon the head, and with a sponge the head and face are kept bathed with the same water. These cold effusions to

the head are very important, particularly in cases of marked nervous symptoms. The limbs and trunk are systematically rubbed, either with the hand of the nurse or, what is more convenient, with a cloth or with one of the forms of bath-rubbers now in common use. While the patient is in the bath the bed is prepared for his reception with a rubber sheet, a blanket, and over this an old linen sheet. The patient is lifted out, and, in a protracted case with feeble heart, is dried at once and wrapped in a blanket. In other instances the patient is tucked carefully in the sheet for from five to ten minutes and covered with the blanket before he is thoroughly dried. The patient is given a hot drink, usually whiskey and water. Half an hour after the bath the temperature is taken and recorded. If at the end of three hours the temperature is again above 102.5° , the bath is repeated. During the bath the patient is carefully watched. Though at first the sensation may be rather agreeable, within five or six minutes the patient usually complains of feeling cold and becomes restless. In a majority of instances shivering begins and the patient's teeth chatter and the extremities and face become a little blue. Systematic frictions do much to counteract shivering and the tendency to cyanosis. Feeble patients are carefully watched, and the duration of the bath is reduced when there are signs of increasing weakness."

It would be an exceedingly simple matter to quote to you a much longer list of figures in support of the water-treatment of typhoid fever, for, as Dr. Wilson has remarked: "Certainly the literature of medicine shows no aggregation of statistics in regard to the treatment of any other disease that has reached such proportions and in which the treatment has been carried on with

the same adherence to rule." The reports already given, however, will suffice to demonstrate the advantages of the Brand treatment as regards the saving of life, and we now hasten to consider some other phases of the subject.

It may as well be stated here that the antipyretic effect of the cold bath does not explain entirely the favorable influence it exerts upon the course of the disease, important as that effect may seem. Those who are most competent to judge declare that antipyresis is a secondary consideration, and that the bath produces its beneficial effect by the stimulating and refreshing action upon the nervous system. High temperature, then, does not constitute the sole indication for using the bath, nor can its reduction be the chief cause of a lessened mortality rate. Were such the case, we have at our command a far less troublesome means of accomplishing the same result in the antipyretic drug, yet the employment of such remedies as antipyrin and phenacetin has done very little to improve the prognosis of typhoid fever. Some one has said that they only enable the patient to die with a nearly normal temperature.

In Pepper's late work on Practice may be found the following regarding the use of antipyretic drugs: "It should be borne in mind that it is the patient and not the fever, that we are called upon to treat. When used at all, the dose should be small. Ehrlich and some others have tested the plan of keeping the temperature constantly low by the continuous use of small doses of the drugs, and the results have been satisfactory neither to the duration of the disease nor as regards mortality."

A drug which has only lately been added to the list of antipyretic remedies is guaiacol, which need only be painted over the chest or abdomen, 20 or

drops at a time, in order to reduce temperature in a most remarkable manner. Of this recent addition to our force, the *Therapeutic Gazette* remarks that, however favorable the action of guaiacol may prove in lowering fever, there is no prospect that it can ever take the place of the cold bath.

It is evident, then, that the beneficial effects of the bath-treatment does not depend alone upon its power to reduce fever. All observers are agreed that cases treated by the Brand method have a marked absence of nervous symptoms; they do not have the hebitude, delirium and similar nervous disturbances so often seen in typical typhoid conditions. The tongue is apt to be clean, the appetite good and catarrhal trouble of the stomach and intestines not often present. Dr. Osler, who cannot be accused of being an enthusiast in the use of the Brand treatment, gives the following as the general effect of the bath in these cases: "The cold bath acts, in a majority of instances, as a tonic to the circulatory system. Within five or ten minutes the pulse of a patient in the bath becomes smaller and the tension is increased. It may, indeed, become extremely small and hard, a change which is particularly noticeable in cases which present the relaxed, dicrotic pulse. After the patient is put to bed and is shivering and blue from the effects of the bath, the pulse may be even difficult to feel. The frequency may be at this time very considerably reduced. The stimulating tonic effect is particularly seen in the early stage, and it seems to be as much upon the peripheral arterial system as upon the heart itself. In the latter stages of the disease, with feeble heart-action and pulse above 120, a tonic action is not so often observed, and the reaction from the bath frequently very slow. Collapse symptoms

were present in five of our cases and necessitated the abandonment of the baths, usually, for a time.

"On the nervous system the most striking effects are witnessed. The headache is relieved; delirium, stupor and coma are rarely seen; the patient sleeps well and naturally and tremor is a rare occurrence. Of course there is not a complete absence of all the grave nervous phenomena, even when the cases are bathed from the earliest period.

"Thirteen patients presented marked nervous features, but this is a very small number in the whole series. Certainly the symptoms to which the term "typhoid" is applied are not nearly so frequent under the cold-bath treatment. Thus, at the time of writing (October 20th) there are 28 cases of typhoid fever in the medical wards, not one of whom has, or has had, delirium or tremor.

"On the respiratory system the baths exercise no special influence. They certainly do not aggravate the preliminary bronchitis, and the idea that they are liable to induce pneumonia or pleurisy is entirely groundless.

"Patients treated with the cold bath appear less often to have the dry, brown tongue. Gastric irritation is not so frequent. Diarrhœa and tympanites are so variable symptoms in different epidemics that it is difficult to say whether they are specially influenced by the baths, but, comparing the series treated with and without baths, they certainly appear to have a good effect."

Compared with other treatments of typhoid fever, the superiority of the Brand method is most apparent; however favorable and satisfactory may have been our own individual experience without the bath, we must admit that no other means at our disposal for hand-

ling this disease has ever given like results in an equal number of cases.

"A remarkable and instructive fact," says Dr. Wilson, "is that the statistics from various sources and from relatively large and small collections of cases, show a mortality percentage that is, as a rule, nearly constant, so that we may now regard it as demonstrated that the death-rate of enteric fever under the treatment of Brand, instituted early in the attack and rigorously carried out, does not range beyond 6 p. c. or 7 p. c., while the general statistics show a mortality under various other forms of treatment, ranging from 15 p. c., to 25 p. c."

	No. Cases.	Death-rate.
Expectant method.....	11,124	21. p. c.
Dr. Murchison's collection	27,051	17.45 "
Jaccoud	80,140	19.23 "

The English Army statistics for six years ending in 1877 show a mortality of 32 p. c.

Osler says: "No drug known shortens by a day the course of typhoid fever; no method of specific treatment or of antisepsis of the bowels has yet passed beyond the stage of primary laudation."

With such apparently overwhelming proofs in its favor, what explanation can be given for the tardy adoption of the cold bath into general practice? If, as has been pointed out, the systematic employment of the bath in typhoid fever means the saving of 15 or 20 lives in every 100 cases, are we not culpably careless and indifferent when we do not give our patients this additional chance for life?

As would naturally be supposed, there are some very potent reasons why the ordinary medical man, and especially the country doctor, has not taken up the water treatment of typhoid fever in all its details, with the alacrity which the results would seem imperatively to

demand. In the first place, to take a patient bodily from his warm bed and dip him in a tub of cold water every three hours, is radically opposed to the preconceived ideas both of the patient and his doctor. The one is very likely violent in his opposition, and the other, being perhaps convinced against his will that Brand's method is the best of all treatments, does not insist, and so the case is conducted upon the "deadly expectant" plan. Then we must admit that the treatment is exceedingly burdensome, requiring extra help, which, in the case of the ordinary physician, would have to be separately instructed for each patient treated. Even in a hospital such as Johns Hopkins', with every facility for attending and carrying out the treatment, Osler remarks that "the cold water treatment, carried out in all its details, is exceedingly onerous, particularly if there be many cases in the hospital at the same time. It is, moreover, to a very considerable majority of patients, intensely disagreeable, and at least nine out of ten have complained bitterly of it. So harsh does it often seem that I would not suffer it in my wards for a day did I not feel sure that, under its systematic use, the death-rate in the disease was definitely lowered."

So strong is the opposition to Brand's method in private practice that many medical attendants employ the bath at a much higher temperature than that prescribed by its originator, the water being cooled after the patient is in the tub. Objections to the bath on the grounds that its use predisposes to pneumonia, hemorrhage from the bowels, and relapse is unwarranted by the facts, and no well-posted medical man now believes that by the Brand method any of these complications are more common than in cases managed in the

ordinary way. As a matter of fact, Brand's statistics show a smaller proportion of these serious complications.

The cold bath is now the established mode of treatment in all, or nearly all, of our great hospitals in the North; it is being more and more introduced into private practice, though it is by no means generally used, even in our large cities. Whether this treatment will ever be universally adopted by the profession, in all its details, cannot be definitely answered now. Perhaps before that time a more simple cure will be placed in our hands, or the advances of sanitary science will have banished typhoid altogether, as some other diseases have been banished. Until that time shall come, there can be no question that the most successful management of typhoid fever lies in a strict adherence to the Brand method of treatment.

We have by no means exhausted the subject of hydrotherapy: Nothing has been said of its employment in pneumonia, in measles, in scarlet fever and nervous disorders. Much of practical importance could be said on the internal uses of water, as intestinal irrigation in diarrhœa and dysentery or lavage of

the stomach, for dyspepsia and similar troubles.

All these applications of water are of practical value, and most of them are capable of being put in practice by the general practitioner. The limitation of this paper does not, however, permit me to occupy your time to a greater extent, and I leave the discussion of these interesting questions to others.

In conclusion, if we admit that the Brand method relieves more symptoms and saves more lives than any other means at our command, it seems to me that the questions of greatest interest for discussion might be formulated somewhat as follows:

1. To what extent is the cold-bath treatment practical in private practice, particularly in country districts?

2. In the absence of trained nurses, is it absolutely necessary that the physician be present at each bath given the patient?

It would also be of interest to hear some suggestions on the best form of bath-tub for private cases.

You will notice that the quotations I have given are all taken from hospital reports. I am not aware that any one in this country has put on record cases taken from private practice.

A PATHOLOGICAL VIEW OF SOME OF THE ACUTE SPECIFIC FEVERS.

BY THOMAS M. RIDDICK, M.D., Woodville, N. C.

(Read before the North Carolina Medical Society, May 17, 1894.)

Upon the walls of a dance hall in a Western town is posted this pathetic inscription: "Gentlemen will please not shoot the fiddler, for he is doing the best he can." In the same defer-

ential spirit I bespeak for myself, to-day, your kindly forbearance.

A Pathological View of Some of the Acute Specific Fevers is the title of my paper.

To treat of this subject with any degree of fullness, would require a volume rather than a thesis. The field for research is a broad one. The limited time, however, forbids exhaustive and extended inquiry.

I shall content myself by noticing, in a cursory and fragmentary manner, some of those more prominent and important affections which often come under the professional care and clinical observation of the medical practitioner.

Let us take first that scourge of childhood, diphtheria, which strikes terror to the tender maternal heart, by its mere mention, and vividly suggests a sorrowful visitation of the angel of death to the couch of a dying loved one!

Many and various theories have been advanced by pathologists at different times as to the causative agent in this distressing malady, but the latest bacteriological investigations of the able and learned Dr. Welch, of Johns Hopkins University, Baltimore, buttress and confirm the opinion that the Klebs-Loeffler bacillus is the real mischief-maker here, the *fons et origo mali*.

Certain depraved systemic conditions, conjoined with malhygienic surroundings, act as auxiliaries in the development of this disease, with its collateral morbid manifestations.

This morbid microbe, then, of Klebs and Loeffler, finding a fostering and favorable nidus in the system, institutes the primary attack. The disease cannot originate *de novo*. Some of the lower animals, as well as the human genus, can propagate it. The inoculation by the germ may be through the inspired air, or by direct contact.

Coincident with the topical infection, by the *bacillus diphtheria*, is the generation of a toxic proteid, or albuminous morbidificient (the result of chemical change), which, being introduced into

the general circulation by absorption, gives rise to a pronounced and dangerous toxæmia.

Then follow those degenerative changes in the tissues of the organism, which constitute the pathology of the disease.

But I am digressing somewhat. Let us follow up some of these pathological changes in a typical case, and take note of their clinical features.

One of the distinctive features of diphtheria, and one which aids no little in diagnosis, is the formation, for the most part upon a mucous membrane of a pseudo-membrane. An inflamed abraded surface may be the site of the diphtheritic deposit, though this constitutes the exception, the tonsillar portion of the facial membrane being the favorite point of initial invasion. No mucous surface in the human anatomy, however, enjoys an immunity from attack, the nasal passages, the Eustachian tube, the delicate membrane of the middle ear, the conjunctiva, as well as the mucous membrane of the stomach, intestines, vagina, prepuce, and even the internal uterine walls having at times been the places of membranous deposits.

When the throat is the original site of inflammatory activity, we notice first upon the tonsillar surface, the appearance of a small whitish spot, set in a red and angry-looking back-ground. This, we might say, is the *avaunt courier* to announce the approach of the combat. These spots, in their inceptive stage, simulate somewhat the early manifestations of follicular tonsillitis. Soon these exudations multiply, and the aggregation of them constitutes a patch or pellicle, which becomes thicker and broader from increased exudations beneath. As they become older they coalesce, become tough and shreddy, and change color from an ashen-white

ownish-red, and often a dusky hue, especially in super-imposed adynamic attacks, and form a fibrinous net-work over the underlying tissues. Epithelial cells, nuclei, mucus and amorphous matter are found in this plastic exudative intication. Leucocytes, those errant spies of the blood, abound. Bacteria, chiefly micrococci, are present, and sometimes play an important rôle in superinducing other diseases, to complicate the original attack. The inflamed true membrane is infiltrated with serum, and turgid from vascular engorgement. The underlying submucous tissues also take on a condition of œdema, and there, too, the fires of an active inflammation brightly burn.

Now, while this false membrane amalgamates with the underlying tissue in some instances, and forms one devitalized necrosed mass, in other cases it does not do this, but merely acts as a detachable covering or lining. The location of the membrane has much to do with this. It seems that the character of the epithelium over which the false membrane lies determines this matter of adhesion. Over pavement epithelium, above the superior vocal cord, the false membrane unites with, and even penetrates, the true membrane, and cannot be detached without producing marked lesions of blood-vessels and connective tissue, while on columnar epithelium, below the superior vocal cord, the removal is easy and free from injury to the sub-membranous structures.

The neighboring areas of the pharynx, which are not themselves the locations of membranous exudation, take on an inflamed catarrhal condition. They exude a muco-purulent secretion. In the more virulent forms of this affection the uvular velum, isthmus, lateral and posterior walls of the pharynx, as well

as the nares, are all covered by this fibrinous exudation.

Rapid reproduction follows the forcible removal of the pseudo-membrane, due to excessive plasticity of the blood, hence the good results often seen in this disease from the exhibition of mercury, which, in addition to its antiseptic and germicidal properties, also defibrinates the blood, in a measure, and thus limits membranous formation.

In favorable cases the formation of pus between the healthy tissue and the false membrane aids in the exfoliation of the latter, though for the most part its removal is gradual and progressive.

In the tonsils there is a pronounced hyperplastic condition of the septa and adenoid tissue. The follicles are filled with dead cells and tissue debris. Hyaline degeneration takes place. The walls of the tonsillar vessels become indurated and thickened. Occlusion sometimes follows where this condition obtains inside the blood-vessels. The muscular fibres in the adjacent tissues also take on these degenerative changes of a hyaline character. White corpuscles are interspersed everywhere. Necrobiosis is the rule in the contiguous affected territory. The blood in the more severe types of diphtheria loses its bright arterial hue. In cases where croup is superadded this dark hue of the blood comes from an excess of carbonic acid, doubtless from the partial occlusion of the respiratory tract and the non-admission of oxygen in proper quantity. As yet the blood changes occurring in this disease are not fully understood. The red corpuscles are diminished in quantity, while the white bodies exist in excess. It is probable, too, that there is an abnormal proportion of fibrin present, though some authorities, reasoning by analogy, held that the fibrin element is lessened.

Among the lesions found we may mention hæmic extravasations in the brain and its meninges, the lungs, the spleen and kidneys.

The lymphatic glands, cervical and maxillary, swell. In the cells of these glands there is great hyperplasia. Points of cell-death occur in the cortical portion of them. Here, too, we find hyaline degeneration.

In the spleen the toxic action of the diphtheritic virus is also apparent. The organ becomes enlarged. The capsule becomes tense. The pulp becomes soft. The follicles become prominent. The blood-vessels are engorged. A girdle of leucocytes surrounds the follicles. Hyperplasia of the splenic corpuscles exists. Hemorrhages and necrobiosis are seen.

Within the capsule and sometimes within the parenchymatous structure of the liver hemorrhages from the capillary vessels are found. The hepatic tissue is infiltrated by leucocytes, though they are found most frequently in the interlobular spaces. Nuclear changes are not observable in them. The cells of the liver may retain their integrity or they may take on a fatty condition.

As the circulatory volume all passes through the kidneys, it is but natural to expect both organic lesion and functional derangement in these organs, from the toxic action of the blood-poison upon the renal tissues. In the graver cases of this malady albuminuria is often found to exist. This does not come alone from the diphtheritic virus. Feeble cardiac action, impaired activity of the respiratory function, together with pyrexia, are all factors in superinducing this pathological state. A pronounced nephritis, with its collateral troubles, hemorrhages under the capsule, and within the glomeruli, as well as between the tubules, is one of the serious accompaniments of diphtheria.

Around the vessels there is an infiltration of the cells, which take on nuclear disintegration. The capsule of Bowman sometimes becomes thickened. There is inflammation of the interior structure of the renal blood-vessels, with epithelial proliferation and desquamation. Tube casts appear in the urine.

How could that great systemic force pump, the heart, escape the general contagion, since it is through its action that the distant tissues are flooded with the lethal agent that inaugurates a condition of disease? It does not. Its own blood-vessels take on that degenerative action noticed elsewhere. Cardiac energy is diminished. On both the endocardial and pericardial surfaces blood extravasations are noticed. Leucocytes appear in masses. The muscle tissue degenerates. The endothelial structure of the cardiac arteries proliferates.

As the bronchi and lungs are the anatomical neighbors of the pharyngeal parts, they often become affected by contiguity. The pharyngeal inflammation, extending downward, involves the bronchial tubes, and later on the pulmonary structure, giving rise to a broncho-pneumonia. Pulmonary obstruction from embolic plugging, may occur. Edema of the lungs sometimes exists.

Paralysis is a formidable sequence of this disease, in many instances, but its causation and pathology are not fully understood, there is nothing definite to report. It is probable that blood extravasations in the spinal cord and brain may be etiological factors.

* * * * *

The next affection which I will consider is an old familiar foe to you all—the swamp doctor of the Eastern lowlands, who dwells where the statocypresses proudly stand, richly festooned in the artistic drapery of nature; to the Piedmont physician, who occupies the

happy middle ground, "where health and plenty cheer the laboring swain," and to the medical mountaineer, who resides in that rugged region where the rocky Alleghanies kiss the clouds with their heavenward-reared summits. I refer to enteric or typhoid fever. It is only of recent years that the segregation of this fever from the other pyretic affections has been accomplished. For a long time it was thought to be the cousin-german of typhus fever, but later researches have effectually dispelled that opinion, and removed every semblance of supposed kinship.

The *bacillus typhosus* is here the artificer of trouble. It is a social microbe, and is found in colonies or clumps in diseased persons. In size it is three times as long as a red blood-corpuscle, but loses two-thirds of diametric measurement. Sometimes the bacilli appear in the form of a very short rod," says Dr. Wilson. Whatever may be the shape of the microbe, it is capable of mischief when taken in the intestinal tract, which is the primary site of its pathogenic activity. Water and milk are the chief media of transmission, though it may be acquired through inhaled air, the mucous membrane intercepting the germs, which are afterwards swallowed, pass into the stomach, and if not digested, they go into the bowels, where the alkaline secretions are more favorable to their existence and increase.

This microbe is not autogenetic. It cannot originate itself, as Pettenkofer supposed. It must come from a pre-existing germ. It does not remain in the blood, but prefers as its habitat the marrow, spleen and liver.

From the body it is discharged in the feces. Great extremes of temperature do not affect this microbe. It has withstood excessive heat and survived for months in cakes of ice.

The lymphatic and intestinal tissues are the first points of attack by the *bacillus typhosus*. They penetrate into the solitary follicles and into the patches of Peyer; here they propagate. From this central point branch settlements originate. The colonists migrate by the lymphatic route to the ganglia of the mesentery. The liver is reached by way of the radicles of the superior mesenteric vein. From here the circulatory current takes the germs to the spleen and other organs.

A poisonous ptomaine is elaborated by this microbe in the system. It is called "Typhotoxine" by Brieger. It is from the pathogenic action of this chemical agent that the dangerous constitutional symptoms incident to the disease arise, especially those which affect the nervous and circulatory systems.

In the intestines the bacilli themselves are the causes of trouble.

Like cerebro-spinal fever, typhoid fever is characterized by a peculiar anatomical lesion, which is not the rule in other pyretic affections. These lesions, however, play rather a subordinate rôle in the causation of untoward symptoms. As before remarked, it is the poisonous ptomaine which is the arch enemy that confronts the physician here and demands his best therapeutic skill.

Let us see what are some of the pathological evidences during the different stages of invasion, fastigium and decline in enteric fever.

The primary change which we observe is a pronounced swelling and hyperæmia of the intestinal glands. The patches of Peyer project above the surrounding surface and assume the form of ovoid plaques. These plaques have raised edges, while the central surface is reticulated. The *glandulæ solitariae* become hard and spherical in shape. They re-

semble shot. In size they run from a fourth to an eighth of an inch in diameter. There is a hyperplastic condition of the lymphatic elements, giving rise to undue enlargements. The submucous tissues become infiltrated.

After this stage has reached its maximum of intensity necrosis begins in the lymphatic tissue. A dirty, yellow color, which progressively increases, is noticed. The follicles break down at irregular points. Ragged, ulcerated surfaces appear. These may coalesce and form a slough. Presently this is a cast-off, either in part or entirely. Cicatrization in favorable cases follows, the healing being by granulation.

Sometimes perforation of the gut occurs, followed by an exudation of the intestinal contents into the peritoneal cavity. Then we see a fatal purulent peritonitis as an unfortunate sequence of this mishap. Hemorrhage from an eroded blood-vessel sometimes is met with.

When an intestinal ulcer is deep and aggravated the whole patch of Peyer is, for the most part, involved. Generally the muscular intestinal coat forms a base or floor of this ulcer. If this be eroded, the peritoneum takes its place. In the solitary glands a like process obtains.

If the same action exists in the *glandule agminatæ*, it produces oval-shaped lesions, the long diameter of which runs parallel with the intestinal lumen.

The vessels of the mesentery, in the affected sections, become engorged. The same histological effects are apparent in the mesenteric glands that obtain in other diseased portions. The primary condition here is one of great vascularity. In favorable cases resolution sets in, and the effused matter is taken up. In other cases a necrotic state follows as an unfortunate sequel. Calcarious

degeneration has been known to occur preceded by a cheesy metamorphosis. Other lymphatic glands, especially those of the liver, exhibit similar degenerative processes.

The spleen shows changes similar to those found in the lymphatic follicles and mesenteric glands. Englargement and hyperæmia exist. In the later stages a soft, almost diffuent condition comes on. The color is a brownish-red. Hemorrhagic infarctions are sometimes seen in the post-mortem examination.

There is another class of lesions yet to be mentioned. These are not the local effects of the bacilli. They come from the general systemic infection, and consist of degenerative changes that are manifest throughout the anatomy, though most apparent in the heart, kidneys and liver. Not only the deleterious action of the microbic poison, but the protracted and excessive thermogenesis which exists, is also to be considered in the causation of these pathological changes.

To the practitioner of medicine there is no feature in the treatment of typhoid fever, of a grave type, which claims watchful care more than the cardiac function. The heart-muscle takes a condition of a fatty degeneration. Atrophy is pronounced. The heart loses the tone and strength of health. A relaxed flabby condition is substituted. Its repulsive power is greatly impaired as evidenced at times by cyanosis. The recovery regeneration of tissue follows the degenerated matter being removed by absorption. Thrombi are sometimes formed, which may give rise to embolism in other organs. The blood-color, like that of diphtheria, is dark, and in coagula form, making the two conditions more analogous, though coming from different causes. In

tion is often noticed on the intima of the large blood-vessels.

In the voluntary muscles histological changes similar to those before described as accruing in the heart are found, though they exist in other virulent fevers too.

Very naturally, knowing of the enfeebled heart-action and defective circulation, we look for hypostasis in the lungs. This is most noticeable in the most dependent portions of lung tissue. Edema follows from tissue infiltration.

The liver is sometimes hyperæmic, but usually normal in appearance. The hepatic tissue softens. The cells become granular and their nuclei disappear. The biliary secretion is lessened, and in the later stages of the disease the bile becomes thin and parts with its pigment.

The kidneys take on parenchymatous changes. The epithelial structure becomes granular and the nuclei are not seen. First the cortical portion is thus affected, but soon the pyramids catch the contagion. Sometimes albumen co-exists with these changes, though this rule has exceptions.

In the central nervous system we find no tissue changes commensurate with the morbid and disturbed condition that obtains. Sometimes there is adhesion of the outer brain covering to the inner cranial surface. Much vascular excitement often exists in the pia mater and in the cerebral structure itself. In the later stages œdema may result, with undue enlargement of the ventricles. Cases of cerebral hemorrhage and purulent meningitis have occurred.

FAMILY PREDISPOSITION TO INTESTINAL HEMORRHAGE IN TYPHOID FEVER.

BY W. T. PATE, M.D., Gibson's Station, N. C.

(Read before the North Carolina Medical Society, May 17, 1894.)

To make clear the standpoint from which these observations are written, it is best, perhaps, to give a brief statement of the views that are generally held as to the relations of intestinal hemorrhage to typhoid fever. The lesions that produce intestinal hemorrhage in this disease are (1) catarrhal inflammation of the intestinal mucous membrane, and (2) inflammatory enlargement and subsequent degeneration of the solitary and agminated follicles. These lesions, in different cases are of varying degrees of intensity. The changes the follicles undergo depend upon a complex process, and it is usually assumed that the progress of the intes-

tinal lesions mark the clinical symptoms in a case as mild or severe. When there is intense hyperæmia of the intestinal mucous membrane early in the disease, capillaries may give way under the pressure and produce hemorrhage. Another cause of early hemorrhage is disintegration of the blood, allowing its easy passage through the walls of the vessels. In the latter case the hemorrhage is usually a manifestation of a general hemorrhagic tendency, and in the former the blood lost is small in quantity.

If the inflammatory changes in the solitary follicles and Peyer's patches produce only a softening and breaking down of the follicles, their contents are

discharged sometimes with a small amount of blood. If the process goes farther and a mass of necrosed tissue is formed, when the slough is detached it may lay open vessels and cause considerable hemorrhage. Later than this vessels may be eroded by the spread of ulceration. This, in brief, is about what is known of the etiology of this complication of typhoid fever.

General hospital statistics show that intestinal hemorrhage occurs in about 5 p. c. of the whole number of cases. It is exceedingly rare in childhood; in adults more frequent in women than in men. Different drugs and different methods of treatment have been charged with inducing a tendency to hemorrhage, only to be denied by equally as competent observers.

Hutchinson states that there can be no question that typhoid fever occurs much more frequently and is much more fatal in some families than in others, but what the peculiarities of constitution are that increase the liability to the disease, nor in what way the mortality is increased, is not stated. No cases indicating family predisposition to intestinal hemorrhage in typhoid fever have been recorded. The object of this paper is to record cases which strongly support the view that there is a peculiar cell life in some families transmissible from one generation to another that predisposes to this complication by its unusual action towards the presence of the typhoid bacillus in the intestinal tract.

The cases collected to support this subject occurred in my own practice and in the practice of the neighboring physicians—Drs. McNair, McLean, Smith, Prince and Hamer, to whom I am indebted for courtesies that have made it possible to report the cases together.

The family in question is that of Mr.

O., white, a farmer, living near Gibson's Station. The family history is good. No idiosyncrasy is shown towards any other disease so far as I have been able to ascertain. Mr. O's mother died at the age of 72 from pneumonia. His father died at the age of 52 from intestinal hemorrhage in typhoid fever. Mrs. O's mother died at the age of 49 from typhoid fever. Her father died at 74 from pneumonia. A paternal uncle, his three sons and one daughter all died from intestinal hemorrhage in typhoid fever in 1859. After these cases the family escaped this disease for many consecutive years.

The epidemic in which the cases occurred that are now to be reported began in October, 1884. At this time the family was called to the bedside of a married daughter in an adjoining county. This daughter had been delivered of twins, one living, one still-born child on October 1st. She died, it is stated, of puerperal fever, November 1st. Her infant was taken ill during the last week of October, and was carried by Mr. O's family to their home. With this case the report begins. It does not seem necessary to give a detailed account of each case, but to present results in brief form.

1884.

Case 1.—Female, third generation, aged six weeks, onset of fever October 25th, had intestinal hemorrhage, and died November 14th.

Case 2.—Sion O., married, second generation, aged 31 years, onset of fever November 10th, no hemorrhage, recovered.

Case 3.—Mary O., married, second generation, aged 25 years, onset of fever November 10th, died of intestinal hemorrhage December 2d.

Case 4.—Robert O., single, second

generation, aged 19 years, onset of fever November 20th, died of intestinal hemorrhage December 10th.

Case 5.—Mrs. O., first generation, aged 59 years, onset of fever December 2d, no hemorrhage, recovered.

Case 6.—Martha A., married, second generation, aged 34 years, onset of fever December 1st, died of intestinal hemorrhage December 20th.

Case 7.—Kisler A., single, second generation, aged 26 years, onset of fever December 4th, died of intestinal hemorrhage December 20th.

1885.

Case 8.—Sarius O., single, second generation, aged 29 years, onset of fever June 20th, had hemorrhage July 2d, recovered.

Case 9.—Nancy H., married, second generation, aged 39 years, onset of fever July 25th, died of intestinal hemorrhage August 10th.

1886.

Case 10.—Elizabeth, married, second generation, aged 37 years, onset of fever August 4th, no hemorrhage, recovered.

Case 11.—Wm. O., married, second generation, aged 27 years, onset of fever August 19th, no hemorrhage, recovered.

1887.

Case 12.—Samuel H., single, third generation, aged 18 years, onset of fever June 11th, died of intestinal hemorrhage June 30th.

Case 13.—Hattie O., third generation, aged 8 years, onset of fever June 23d, no hemorrhage, died from exhaustion July 10th.

Case 14.—Wm. N., married, second generation, aged 40, onset of fever June 4th, no hemorrhage, died of exhaustion July 10th.

Case 15.—Hector N., third generation,

aged 12 years, onset of fever September 1st, no hemorrhage, recovered.

Case 16.—Nathan H., third generation, aged 16, onset of fever September 1st, no hemorrhage, recovered.

Case 17.—Corrianna B., married, third generation, aged 17 years, onset of fever September 15th, died of intestinal hemorrhage October 6th.

1888.

Case 18.—Henry O., single, second generation, onset of fever May 10th, died of intestinal hemorrhage June 1st.

Case 19.—Blanche O., second generation, aged 11 years, onset of fever June 22d, had hemorrhage July 9th, recovered.

1889.

Case 20.—Julius A., third generation, aged 16 years, onset of fever September 22d, died of intestinal hemorrhage on October 8th.

Case 21.—Judson A., third generation, aged 14 years, onset of fever October 8th, had hemorrhage October 18th, recovered.

1890.

Case 22.—Julia W., married, second generation, aged 42 years, onset of fever July 1st, died of intestinal hemorrhage July 17th.

Case 23.—Berta W., third generation, aged 10 years, onset of fever July 6th, no hemorrhage, recovered.

Case 24.—Younger A., married, second generation, aged 39, onset of fever August 20th, no hemorrhage, recovered.

Case 25.—John W., third generation, aged 14 years, onset of fever September 2d, no hemorrhage, recovered.

Case 26.—Kate W., third generation, aged 10 years, onset of fever November 1st, no hemorrhage, recovered.

Case 27.—Mattie N., third generation, aged 18 months, onset of fever Decem-

ber 23d, had hemorrhages January 9th, recovered.

1891.

Case 28.—Mollie N., third generation, aged 13 years, onset of fever March 15th, no hemorrhage, recovered.

Case 29.—Lucy O., third generation, aged 3 years, onset of fever July 5th, no hemorrhage, recovered.

Case 30.—Maggie N., third generation, aged 16 years, onset of fever July 9th died of intestinal hemorrhage July 24th.

Case 31.—Mary O., married, third generation, aged 23 years, onset of fever August 5th, no hemorrhage, died September 15th.

Case 32.—William L., fourth generation, aged 8 years, onset of fever August 5th, had hemorrhage August 20th, recovered.

Case 33.—Sallie L., married, third generation, aged 26 years, onset of fever September 10th, died of peritonitis, following perforation of the bowels, September 28th.

Case 34.—Maggie S., third generation, aged 9 years onset of fever September 25th, had hemorrhage October 10th, recovered.

Of the 34 cases 15 were males and 19 were females. Intestinal hemorrhage occurred in 18, or 53 p. c. It was the immediate cause of death in 12 cases, or 33 p. c. The percentage of hemorrhages was the same for both sexes. All ages, from infancy to 42 years, suffered alike. The hemorrhage occurred on the first day of the fourth week in 2 cases; during the third week in 14 cases, and during the second week in 2 cases. In all cases the blood lost was considerable, and in those in which the hemorrhage was the immediate cause of death, it was sudden, free and profuse. There was no hemorrhagic tendency in the family. In parturition, accidents

and surgery there is no more tendency to bleeding than in other patients.

The virulence of the poison does not explain these cases. They extended over a period of seven years. The bacillus, even if there was reason to believe that it was very virulent in the beginning of the outbreak, had ample time to become attenuated. Besides, its virulence was not developed in other patients. There occurred in my own practice 117 cases excluding this family, many of them the nearest residents to the farm-house (Mr. O's home) where the outbreak began, with 4.27 p. c. of hemorrhage and only one immediate death from this cause. The mortality in 117 cases was 8.73, which, considering the rude nursing and crude feeding in many of these cases, would not indicate a virulent poison.

It was not the rule that the severest cases were the most liable to hemorrhage. Three very mild cases occurred in my own practice, viz: 19, 22 and 34. I did not see these patients at any time prior to hemorrhage with the pulse over 100 nor the temperature above 103° F. nervous symptoms slight. All had hemorrhage, and one of them (22) literally bleeding to death within an hour. Case complaining of headache, with temperature slightly elevated, continued to assist in household work up to the time of hemorrhage from which she died during the evening of the day on which the bleeding began.

Other cases could be quoted to show that there was no definite relation between the severity of these cases and the amount or frequency of the hemorrhage.

It is not my purpose to attempt a solution of this problem of the etiology of the intestinal hemorrhage in the family, but simply to record this series of cases occurring in private practice.

that undoubtedly support the view of family predisposition.

DISCUSSION.

Dr. Long had listened to the paper with much interest, and told his experience in that line. He was called to attend a young man who had typhoid fever. In about two weeks the young man died of intestinal hemorrhage. Several cases of typhoid fever had occurred in that family, and this was the fourth death from hemorrhage. These cases did not all occur in the same year, but two of them did occur in three weeks of each other, those of the young man and his sister. They were, however, separated 100 miles from each other, and therefore the hemorrhage could not have depended on the form or type of the fever.

Dr. O'Hagan did not agree with the author of the paper. During the late war typhoid fever of great violence had broken out in his regiment, intestinal hemorrhage being one of the most marked symptoms in all the fatal cases, and in all the cases there could hardly have been a family predisposition to the disease. Intestinal hemorrhage in typhoid fever is due to the ulceration of the Peyer's glands. The ulceration may be due to a peculiar virulence of the poison, to some climatic conditions, or to some intensification of the typhoid poison caused by drinking infected water. The hemorrhage was not confined to the severe cases. Had this diathesis toward hemorrhage existed, it would certainly have shown itself in other conditions. But the Doctor says that in obstetric and surgical cases the patients were

free from hemorrhage. He thought that that proved the improbability of hereditary diathesis. He said that they must fall back upon local causes, that is, the extent of the ulceration of the glands.

Dr. Fox told of a family in his section in which every case of typhoid fever died of hemorrhage. In the family there had been five deaths from hemorrhage. Those cases were peculiar in the suddenness and the profuseness of the hemorrhage and the deaths following soon after. In some cases of the fever hemorrhage relieved the patient and was a turning point in favor of recovery, but in this family it always ended in death. He thought that in this family there was a tendency towards hemorrhage.

Dr. Sykes believed in the hereditary tendency in certain families, and told of a family in which, when typhoid fever broke out, hemorrhage was always expected.

Dr. Pate, in closing the discussion, said that, although the hemorrhage was caused by the ulceration of the solitary follicles and Peyer's patches, yet it did not account for the hemorrhage in certain families. In the family to which he had referred there had been this predisposition for generations, for 40 or 50 years, and the local causes had not been the same in all the places and all the times. He thought that the cells forming these glands were probably more susceptible in that family to the typhoid fever bacilli than in most families, and that larger and deeper sloughs were formed.

Selected Papers.

CONTAGION IN TUBERCULOSIS.

BY GEORGE A. EVANS, M D.

(Read before the Medical Society of the County of Kings, February 20, 1894.)

In order to emphasize more forcibly the necessity of adopting active measures to limit the prevalence of tuberculosis in this city, it may not be amiss at this time to lay before the Society a brief compilation of data upon which your "Committee on Tuberculosis" largely based its recommendations.

This occasion also affords an opportunity to say that your committee followed somewhat in the footsteps of Dr. Herman M. Biggs, in his report on the subject to the New York City Board of Health.

In 1891, Dr. George H. F. Nuttall, of the Johns Hopkins University, reported his observations on the numbers of bacilli in the sputum in three cases of pulmonary tuberculosis undergoing the Koch treatment; these observations were made every few days. In the first case the patient expectorated 2,000,000,000 bacilli during the 24 hours. After the patient was inoculated with tuberculin the number rose to between 3,000,000,000 and 4,000,000,000. After the inoculations ceased the number fell to what it had been originally. In the second case the number of bacilli varied between 20,000,000 and 165,000,000 on the days preceding the Koch inoculations, while the third case varied between 70,000,000 and 12,000,000 before the inoculations. In another case, not undergoing the Koch treatment, the number of bacilli varied between 300,000,000 and 4,000,000,000. The accuracy of Nuttall's method of computation was

demonstrated by a number of test and culture experiments.

According to Böllinger, one cubic centimetre of phthysical sputum contains from 810,000 to 960,000 tubercle bacilli. The average consumptive, therefore, expectorates between 30,000,000 and 40,000,000 of these parasites a day.

In a series of experiments of investigations made by Dr. T. Mitchell Prudden, of New York, in 1891, as many as 21,460,000 tubercle bacilli were computed to be present in the daily sputum of a single patient. From data taken from the vital statistics report of the last census of the United States, it is safe to assume that the whole number of deaths due to pulmonary phthisis in the entire country during the year 1890 was over 125,000. If we estimate the average duration of the disease as two years, there would be two cases in existence for every death. In this way we estimate 11,000 cases in existence in New York City, 4,000 in Brooklyn and 13,000 in the rest of New York State.

Most of these phthysical subjects eject for months large quantities of sputa containing immense numbers of spore-bearing tubercle-bacilli. "Most of these countless infective germs (to quote Robert Koch) which are scattered everywhere, on the floor, on articles of clothing, etc., perish without finding a opportunity of settling again in a living host, but we should further bear in mind the results of Fischer's and Schill's experiments, which demonstrate that tu

bercle-bacilli may retain their virulence for 43 days in putrefying sputum, and for 186 days in sputum dried at the ordinary temperature of the air." It has also been shown by Sawizky that tuberculous sputum, dried and preserved under the conditions which usually obtain in the dwelling-house, preserves its infective properties for two months, while the experiments of Stone go to show that the virulence of these parasites may be extended for as long a period as three years. Koch says: "There can be no doubt as to the manner in which the tubercular virus is carried from phthysical to healthy subjects." By the force of the patient's cough particles of tenacious sputum are dislodged, discharged into the air, and so scattered.

"Now, numerous experiments have shown that the inhalation of scattered particles of phthysical sputum causes tuberculosis with absolute certainty, not only in animals easily susceptible to the disease, but in those also which have much more power of resisting it." Koch goes on to state that, while a healthy person who is brought into immediate contact with a phthysical patient and inhaling the fragments of fresh sputum discharged into the air may be thereby infected, inhaling dried sputum in the form of dust is much more likely to set up tuberculosis.

Schirner, of Vienna, reports in the *Wiener Medizinische Presse*, January 4, 1891, that one day in 1888, on rinsing the dust from some grapes bought on a warm day, late in summer, he found the water quite dirty, and, struck by the thought of the large number of phthysical patients who eject their sputa upon the streets, he ejected 10 cubic centimetres of this into the abdominal cavity of each of three guinea pigs. One of the animals died in two days of peritonitis.

The other two died in 45 and 58 days, respectively.

Examinations of the bodies disclosed extensive tuberculous infiltration at the sight of inoculation, and partly caseous nodules in the peritoneum, in the liver, in the spleen, but with meagre deposits in the lungs. Tubercle bacilli were found in the nodules.

In a communication made to the Académie des Sciences, MM. Spillman and Haushalter, and recorded in *La Semaine Médicale*, the question of the spread of the tubercle-bacillus by means of the common house fly is considered. The authors state that they have seen flies enter spittoons containing the sputum of phthysical patients; they were then caught and placed in a bell-jar. On the following day several of them were dead. Examination of the abdominal contents and excrement of these flies on the inside of the jar showed the presence of many tubercle-bacilli.

Cornet's experiments, which were published in the *International Klinische Rundschau*, demonstrate beyond doubt the infective nature of dust removed from the walls of rooms in dwellings and from those of hospital wards in which tuberculous subjects have lived. In order to examine the walls and floors of rooms, the surfaces were washed over with sterilized sponges, which were then used to inoculate broth, the resulting culture being injected into the abdominal walls of 3 guinea-pigs. The animals were killed forty days later and a careful necropsy made. Twenty-one hospital wards, in which most of the patients were phthysical, were examined in this way, the result being that, from the dust of 15 of them, tuberculosis was set up.

Similar observations made in lunatic asylums showed that the walls of these establishments are very frequently infected with tubercle. Private houses,

where persons affected with phthisis had lived, gave likewise very distinct, positive results. The investigations of Flick in Philadelphia, as well as those of De-Forest in New Haven, which were made to determine the infective or non-infective nature of the atmosphere of rooms in which tuberculous subjects had lived, were also conclusively affirmative.

Marfan, of Paris (*Semaine Médicale*), reports the following details of a localized epidemic of pulmonary phthisis, in which the element of infection seems to have played a very important part :

"In a large business house in the centre of Paris, 22 persons were employed about eight hours a day. One of them, aged 40, had been phthisical for three years, when he died. He coughed and spat upon the floor for three years, and did not leave his work till three months before his death. From this time, out of 22 persons employed, 15 have died. One only died of cancer, the remaining 14 died of pulmonary tuberculosis. One year before the death of the first person, who appears to have been the starting point of the epidemic, two employees who had been connected with the same business for more than ten years, began to cough and spit upon the floor. They died in 1885. Beginning with the end of 1884, the deaths followed each other at close intervals."

At the meeting of the Congress for the study of tuberculosis, which was held in Paris, in 1888, a permanent committee was appointed to formulate simple and practical instructions regarding the prophylaxis of tuberculosis. On behalf of this committee, Villemin submitted a report which received the approval of four professors of the medical faculty of Paris, of which the following is a brief summary :

1. Tuberculosis is, of all diseases, the one which has the largest number of

victims in the cities, and even in certain country districts. In 1884, for instance, of 57,970 deaths in Paris, 15,000 were due to tuberculosis.

2. Tuberculosis is a virulent, contagious, transmissible parasitic disease, produced by a microbe, the bacillus of Koch. This microbe, apart from direct hereditary transmission, finds its way into the organism through the digestive and respiratory tracts, and through wounds of the skin and mucous membrane. The propagation of tuberculosis may be prevented by well-directed precautions.

3. The parasite of tuberculosis may be found in the milk, muscles and blood of the food of animals. The use of raw and under-done meat, and blood that may possibly contain the living germ of tuberculosis, should be prohibited. Milk, for the same reasons, should be boiled before being used.

4. On account of the dangers concealed in milk, the protection of infants, who are so easily attacked by tuberculosis, should attract the special attention of mothers and nurses. The tuberculous mother should not nurse her child. Cow's milk, when given, should always be boiled. There is less danger in giving ass's and goat's milk unboiled.

5. It is greatly to the interest of the public to assure the proper inspection of meat, as provided for by law. The only sure way to avoid the dangers of tubercular meat is to see that it is *thoroughly* cooked.

6. Inasmuch as the germ of tuberculosis may be conveyed from a tubercular to a healthy man by the sputum, pus inspissated mucus, and any object containing tubercular dust, it is necessary to bear in mind that :

a. The sputum of phthisical persons being the most dangerous agent of transmission, there is a public danger from

s presence upon the ground, carpet, hangings, curtains, napkins, handkerchiefs, cloths and bedding.

b. The use of cuspidors by everyone should be insisted upon in all places. Cuspidors should always be emptied into the fire and cleansed by boiling water. They should never be emptied into rubbish piles, upon gardens, or where there is a possibility of infecting poultry, or even into water-closets.

c. It is unsafe to sleep in the bed of a tuberculous patient, or to spend a great amount of time in the room of such a patient; least of all should young children be allowed to sleep in such a room.

d. Individuals considered as predis-

posed to contract tuberculosis should be kept away from localities frequented by phthisical patients.

e. One should not use objects contaminated by phthisis (linen, bedding, clothing, toilet articles, jewelry, hangings, furniture, playthings, etc.) except after suitable disinfection.

f. Rooms and houses occupied at watering-places and resorts, should be furnished in such manner that disinfection may be easily carried out after the departure of each invalid. It is the best plan of all to furnish rooms without curtains, carpets or hangings, to white-wash the walls and cover the floors with linoleum.—*Brooklyn Med. Jour.*

SAD MISHAP WITH ANIMAL EXTRACTS.

In a number of published papers I have urgently advocated giving honestly and fairly the record of our successes as well as failures, of our blunders as well as our hits, in published reports of cases. The time has now arrived for me to put these precepts into practice, since very lamentable mistakes, not to mention a stronger expression, having taught me a lesson that I shall try to profit by in the future, and which, I think, ought to be made known to the profession, in the hope that it may inure to the general good.

The blunders I wish to call attention to occurred recently in the preparation and use of the animal extracts so fortunately discovered by the late Dr. Brown-Squard, of Paris, France, and so effectively developed by certain eminent physicians in our own country. After having carefully and diligently experimented for quite a lengthy period in the manufacture and use of these extracts,

I came to the conclusion, from my results in the treatment of certain functional troubles, that I had accidentally hit upon an unusually excellent technique in the manipulation, and felt emboldened to try my hand in the treatment of some organic troubles.

One particular lot of the extract had proved so exceptionally efficient that I decided to adopt the method pursued in its preparation as a rule for my laboratory. Looking up the note of the method I had employed with it, I ascertained that in all essential particulars except one I had followed that of the high authorities now everywhere recognized in this connection. The exception had regard to the length of time given to the maceration. Instead of one year, the regulation time, I had left the material in the macerating vats for eleven months, five weeks and eight days.

My first experiment was made with two black-and-tan setter dogs, who, in

attempting to take charge of some blue-grass hay in the manger of a Kentucky thoroughbred stallion, had been set upon by that spirited animal and compelled to beat a hasty retreat, each with the complete loss of an ear. These canines were named, respectively, Ardotto and Scipio. Ardotto had lost his left ear and Scipio his right. As Ardotto had become quite vicious, and was also unkindly suspected by the neighbors of eating his mutton too fresh, I conceived the notion of killing him and feeding his ear to Scipio in the shape of aurine, or ear-extract, to be made according to my improved formula.

The result was marvelous. In the course of a few weeks after Scipio began taking the aurine thus prepared, an ear began growing rapidly from the old stump, and in a short time the appendage was fully restored. If there was any difference, it looked smoother and glossier than the other, and, indeed, though not noted at the time, it was an exact reproduction of the ear of the condemned Ardotto. I failed to take into consideration at the time that the dogs were twins, that they had lost opposite ears, and that they were both black and-tan, all these coincidences being purely accidental. However, after a short time Scipio was unluckily run over by a street-car, and lost his left hind leg. Encouraged by my former successes, I began looking up a suitable dog that could spare a leg, or a leg that could spare a dog, with the view of preparing a quantity of legine, in the hope of restoring as before the lost member. The first dog brought was a strong, bench-legged cur, with a shaggy, well-curved tail. After the carcass had been divided ready for committing to the vats, it somehow failed to meet the fancy of my assistants as well as myself, so we threw it aside and substituted an

animal that appeared to be a vigorous cross between setter and Newfoundland, using the right hand leg in the preparation of the extract.

An enterprising young friend, however, took it into his head to treat a bob-tailed dog belonging to his mother with a preparation of tailine, in the hope of restoring the missing member, and requested permission to prepare the extract in my laboratory from the tail of the rejected cur. To this I cheerfully consented.

After macerating our materials with scrupulous regard to the period we had adopted as our rule, viz: thirteen months five weeks and eleven days, my assistant went into the laboratory early in the morning, before it was fairly light, to get the legine to begin on Scipio's leg. Unfortunately, in doing so they cracked the glass jar containing it. The jar in which my young friend had prepared his tailine stood next to it, but was thought by them to be empty. Into this he hastily poured the legine and brought the jar into the operating-room, where the mixture was administered to Scipio.

At first things went on most gratifyingly. A leg began growing rapidly from Scipio's stump, and in a short time it was thought best to turn him out for exercise so that the new joints might be made supple. When he was brought out it was observed that the hair on his tail was becoming rather coarse and stiff, and it was noticed, too, that his tail had begun to turn over his back. At first, however, it was thought that this roughness of the hair was due to the fact that he had not been in a situation to have the toilet of his tail properly attended to, while the curling was attributed to pressure against the walls of the narrow kennel in which he had been confined. Both the curling of the tail and the state of the hair grew wor-

aily, and an investigation which was now set on foot developed the mistake by which the legine and the tailine had become mixed.

In a short time Scipio's tail had become markedly bushy and ugly, and eventually became curled so tight over his back that half the time his hind feet were lifted clear off the ground. This led to the discovery that the extract from some animals is prepotent as compared to others, for evidently the tail-developing elements of the cur had predominated over those of Scipio. But poor Scipio's misfortunes did not end here. We had made the legine from the right leg of the mongrel, and the result was that a right leg grew on Scipio's left stump, and the dew claw was on the wrong side. Furthermore, Scipio had always been a right-handed accelerator, that is, he had been in the habit of lifting his right leg whenever he felt an inclination to moisten hat-racks, doorposts and the like, and by a streak of good fortune the same had been the case with the mongrel. So, when it became necessary for Scipio to discharge the anal secretion both legs would begin bouncing up in the most tumultuous and unsymmetrical way, and this, with the tilting of the hind-quarters due to the tight-curling of the tail, made poor

Scipio at such times a picture of confusion, shame and chagrin that could not but touch a tender spot in the bosom of the most unsympathetic.

Imagine the consequences if I had been treating a sensitive young lady, say a beautiful blonde, who had happened to lose her nose through infection from the kisses of too ardent a lover, and a similar blunder had been made! Imagine that noseine derived from the black, broad and flat proboscis of some glossy son of Africa had been used in the treatment, and worse still, if worse can be, that some one making hairine from kinky shearings from the same source had got the extracts mixed as we did. I draw the veil!

Half the seigniorage in the national treasury would not suffice to meet the damages, especially if the jury should happen to take its cue from a verdict in a recent noted case at the national capital. I only venture this allusion in order to suggest the measure of gratitude that is due me for making this humiliating confession purely for the good of the profession, and bravely regardless of the fact that well-nigh universal success characterizes reports throughout medical literature.—LUKIANOS, in *The American Practitioner and News*.

Abstracts.

ÆTIOLOGY, PATHOLOGY AND TREATMENT OF MALARIAL HÆMATINURIA.—P. T. F. Oates (*Texas Med. Journal*) contributes an interesting paper on this obscure disease. The general opinion is that the prime cause is the malarial micro-organism, but this is not the im-

mediate causative agent. The malarial germs first gaining entrance to the blood, produce their typical result—chill and fever. The administration of quinine destroys the germs, and doubtless robs the spores of some of their vitality. The succeeding generation of plasmo-

dian life is unhealthy, and they give rise to no appreciable disturbance. Not until the third generation on the seventh day, or the sixth generation on the fourteenth day, does the intermittent fever recur. Thus the germs are kept down in number by the anti periodic, but this insignificant number are living on in the blood, devitalizing it and poisoning it with their leucomaines and toxines. The blood becomes deficient in oxygen and surcharged with carbon dioxide. Dissolution of the red blood corpuscles results. The blood has been robbed, day by day, little by little, of its oxygen-carrying power. The urine becomes of the port-wine color due to excretion of the broken-down red blood cells. These become so abundant at times that the kidneys become blocked up and anuria results. The lining membrane of the bowel, and sometimes the stomach, are plastered over with these same disintegrated cells in the act of excretion by this tract. The bile duct becomes occluded in this same manner, and the yellow skin, mucous membranes and conjunctiva are the result of the absorption of bile. * * * To treat black jaundice, therefore, is to correct the pathological condition just outlined. In this, as in many other conditions, we cannot treat the primary cause. The immediate cause demands our first attention. We have said the blood is deficient in oxygen. As to whether this deficiency of oxygen results directly from reduction of the oxygen-carrying power by the absence of one of the essential constituents of the blood, or from reduction of carbonic acid carrying power, we shall not attempt to explain at length. The probability is that the deficiency of oxygen is caused by the failure of the blood to carry off the carbon dioxide, which in turn displaces the oxygen. What is that element that gives the

blood tissue its solvent power over carbon dioxide, and thus secondarily over oxygen? The blood is a heterogeneous mixture of elements or compounds, and to retain its power to perform its full physiological function, each component part, element or proximate principle must vary only within certain limits. When any one of these is increased or diminished beyond these limits, a diseased condition is the result. In the disease or pathological condition now under consideration, the blood has been reduced in its alkaline phosphates to the extent that it no longer carries sufficient oxygen, and it is by virtue of the alkaline phosphates that the blood is especially a great oxygen carrier, whether it be directly or indirectly.

As to whether the dissolution of the red cells takes place by reason of the disturbed proportion of the component parts, caused by the diminished phosphates, or by reason of imperfect oxygenation consequent upon diminished phosphates, I shall not stop to inquire. It is sufficient to say that the immediate or proximate cause of the pathological condition present in malarial hæmaturia is a diminished proportion of the alkaline phosphates. The pathology of this affection at once suggests the treatment; clearly, the first indication is to furnish the blood with abundance of the phosphates. But to do this effectually the alimentary tract must be swept of the unhealthy debris with which it is filled, then the phosphates may be administered. Synchronous with this the kidneys should be cleared out with a non-imitating diuretic.

Next our attention is addressed to the half-developed but well acclimated brood of malarial hæmatozoa, for this gives an antimalarial. Excite nutrition with stomach and blood tonics, and furnish to the system easily appropriated nut-

nts. As representative of the alkaline phosphates I give sodium phosphate, as a non-irritating diuretic acetate of potassium, Fowler's solution as the antimalarial specific, and as a cathartic mercuric (mercurous (?)) chloride.

Called to a case, diagnosis clear, I begin treatment by giving to an adult 5 or 30 grains of mercuric (mercurous (?)) chloride; at the same time begin with 15 grain-doses of potassium acetate, and 20- to 30-grain doses of sodium phosphate at intervals of three hours; also half-glass of sweet milk, containing a tablespoonful of brandy, at same intervals. The next day direct the same continued, except the mercuric (mercurous (?)) chloride, which already will have accomplished its purpose, and give in addition Fowler's solution, 4 or 5 drops, and a half-glass of milk punch, every three hours. I make no further change till the third or fourth day, when I usually give a prescription of tincture of chloride of iron and chlorate of potassium. I cannot give the exact specific indications for the last prescription, but, as a general way, may say that it furnishes ingredients deficient in normal quantity. The plan of treatment has enabled me to report about 15 consecutive cases without a single death. Some of this number were mild, others of the severest type. I wish to call especial attention to the fact, which already I have attempted to emphasize, that the main indication in treatment is the administration of sodium phosphate freely and persistently from the beginning, for that meets the main pathological condition, namely, deficient oxygenation of the blood. I wish to call attention, also, to the fact that there is no great urgency for the administration of any antimalarial, or rather, any remedy that will kill malarial germs. But especially do I wish to express, in raised letters, my

condemnation of the use of quinine, not that it fails to have its usual specific effect upon the micro-organisms, by any means. In the first place, these little blood animals are not so numerous as to create any great immediate alarm. In the second place, the blood tissue is devitalized to that extent that disintegration is rapidly going on—complete dissolution impending. Quinine is a protoplasmic poison. It inhibits functional activity of the blood. The blood is not in a condition to bear any drafts upon its physiological resources. It may kill the remaining micro-organisms, but at the same time in severe cases it will prove to be the "feather that breaks the camel's back." It may give the finishing touch to the devitalizing process to which the blood has been subjected so long.

For the well-acclimated germ of chronic malaria, arsenic is the ideal specific. It is not a protoplasmic poison; it does not inhibit functional activity of the blood; it favors constructive metamorphosis, and withal, as has been said, destroys the micro-organism of chronic malarial toxæmia.

TREATMENT OF TYPHOID FEVER.—Dr. Almer Lee contributes a paper (*Chicago Med. Record*) on the above subject, in which he advises the plentiful use of water internally and externally. Before waiting for the typhoid symptoms to develop the bowels are thoroughly cleansed by continuous douching until the water returns clear. For a week this should be done twice daily, then once each day until convalescence. The temperature of the water depends on the height of the fever, the higher temperature of the patient suggesting a lower temperature of water. Bathing the patient should be performed regularly, the bath-tub being preferable

where the patient is strong enough to be assisted into it, otherwise the sponge bath and wet pack. Water is given generously by the mouth and to each glass of water is added a half-tablespoonful of hydrozone. This is alternated after a few days with glycozone. The author claims these preparations to be actively antiseptic, when given in this dose frequently repeated (he says it may be given each time the patient desires water). The use of peroxide of hydrogen had proven unpleasant to patients on account of the metallic taste, but the use of hydrozone does away with this objection. As a sedative and to produce sleep, he prefers the sulphate of codeine in doses of from $\frac{1}{2}$ to 1 grain by the mouth. As nourishment the author recommends "whatever is simple" at four-hour intervals. Whipped eggs, milk and freshly pressed juice from broiled steak or mutton are the chief food. The juices of fruits are recommended as being delicious to the typhoid fever patient and are not to be dismissed on the supposition that they are injurious.

SALOPHEN IN RHEUMATISM.—Drs. CiPELLINI and VITI (*Terapia Clinica*) recite their experience with salophen in eight cases of rheumatism, including chronic and acute cases, and present the following conclusions: "Salophen is an active anti-rheumatic, better tolerated than salicylic acid and salicylate of soda and more innocuous than salol. In severe acute and chronic rheumatic affections it is somewhat less effective than the salicylates, and its chief indication is in the initial stages of acute arthritic and in mild or subacute cases. In obstinate or chronic cases it is advisable to follow its administration with that of iodide of potassium. The antipyretic action of salophen is not marked. In the intestinal canal it acts as an anti-fermentative,

and it destroys the reaction of indican in the urine. Doses as high as 5.0 to 6.0 Gm. *pro die* continued for several days are not attended with disturbances of any kind."—*Med. and Surg. Reporter*.

IMMOBILIZATION OF FRACTURES INTO JOINTS.—Dr. Ansel G. Cook (*International Journal of Surgery*) reviews the teaching in regard to the treatment of fractures into joints, and emphatically denounces the practice of beginning passive motion early to avoid ankylosis: "Broken bones not involving joints are treated by placing the fragments in apposition and keeping them at rest till union is complete. Cut tendons and muscles are sutured, confined by plasters or simply approximated, as the case may be, and kept at rest till they have united. Ruptured arteries are tied or twisted, when the hemorrhage does not stop spontaneously, and when of large size the parts to which they supply blood are kept at rest till collateral circulation is established. Ligaments do not differ essentially in structure from tendons nor synovial membranes from tendon sheaths; yet, when all these various structures are grouped together in the formation of a joint, and the joint injured, a line of treatment is advocated that is universally acknowledged to be incorrect if applied to each of the component parts when considered separately."

He arrives at the following conclusions and rules of treatment:

1. That bony or serious fibrous ankylosis is the result of injury and subsequent inflammation, and not of immobilization.
2. That early passive motion only disarranges the fragments of bone, thereby increasing the production of callus, that it irritates the injured ligaments, and by increasing the inflammation, ten-

to produce the ankylosis it is thought to prevent.

3. Immobilization is useful *only* when active inflammation is present, or until the ruptured ligaments and broken bones have thoroughly united.

4. The logical treatment of a fracture into a joint, therefore, should be rest and local applications to reduce inflammation. Reduction of the fracture, as early as possible, then immobilization until the bones and ligaments have united (from three to eight weeks, or more, according to circumstances).

5. Passive motion, massage and use of all the tissues become normal, or, if the massage fails, complete rupture of all adhesions under an anæsthetic. The factors which will ultimately determine ankylosis are the nature of the original injury, the character and duration of the subsequent inflammation, the destruction of bone and cartilage, cicatricial contraction of the soft tissues around the joint and the age and condition of the patient.

A NEW GAS, PROBABLY ELEMENTARY.—Lord Rayleigh, Secretary of the Royal Society, has set the whole scientific world on the *qui vive* by his welcome intelligence of the separation of a new gas, probably elementary, from the nitrogen of the air. For a long while a mysterious discrepancy has appeared in the atomic weight of the element nitrogen. When obtained from the air nitrogen had a density some $\frac{1}{2}$ p. c. higher than the nitrogen obtained from other sources, such as the nitrates. All sorts of explanations were put forward to account for this difference, but at last the true solution of the problem is presented to us; another gas, whose presence was unsuspected, was found mixed with the nitrogen of the air. The gas—whether elementary or not still remains

to be determined—is exceedingly inert, resembling nitrogen itself in that respect, and Professor Ramsay, F.R.S., who shares the honor of the discovery with Lord Rayleigh, has not yet succeeded in finding any chemical reaction peculiar to the new substance. If sparks from a Rhumkorff induction coil are passed through a vessel full of air, and the oxides of nitrogen formed by the discharge are absorbed in caustic potash, a residue is left that is neither oxygen nor nitrogen. This answers to no chemical test, but possesses a very distinctive spectrum consisting of a single blue line, much more intense than the line of the same wave-length in the nitrogen spectrum. The gas can also be prepared by exposing nitrogen obtained from air to the action of magnesium. The nitrogen is absorbed by the metal, and the density of the gas rises from 14 to nearly 20. It is present in air to the extent of only 1 p. c., and only a small quantity—about 100 cubic centimetres—has been secured up to the present. There is room, according to Mendeljeff's table, for three elements between the atomic weights of 19 and 23, i. e., between fluorine and sodium, and this may prove to be one of them. The vacancies all occur in the eighth group, in which iron, nickel, cobalt and the rare metals of the platinum group find a place. It is curious to note how often what was regarded at first merely as an exasperating discrepancy has turned out to be a signpost on the high-road to fresh discoveries. As Professor Crookes has pointed out, the investigator is amply satisfied when his figures add up to 99.99 p. c., or even less. He puts the difference down to "loss" or "errors of analysis," or in default of that coins some term, such as "catalysis," warranted to explain everything. All the while the high road to a great discovery is open,

and fame and honor are holding out their arms to welcome him if he would but see. Another consideration occurs to us. Is it not possible, having regard to the great extent of our atmosphere, that more than one new element may be contained in it? We find a parallel case among the scarcer elements comprising the solid portion of the globe. Many rare elements, such as yttrium, although hardly ever found in mass, are almost universally distributed among the more abundant rocks. Supposing that an element occurred to the extent of only a hundredth of 1 p. c. in the atmosphere, there would be a considerable quantity of it in an envelope of air five miles thick and in a diameter of over 8,000 miles. We may, indeed, be inhaling many rare elements at every breath without knowing it.—*Lancet*.

THE PAPER JACKET, ITS HISTORY AND APPLICATIONS.—Dr. J. Marshall Hawkes read a paper upon this subject, at a recent meeting of the New York County Medical Association, and presented about a dozen illustrative cases.

Dr. Hawkes came to make the paper jacket, after trying nearly all possible materials, in a case of injury to the vertebral column in 1887. He was unable to adapt a jacket which the patient could wear without undue suffering, until paper was suggested by seeing some workmen making buckets of this material. He then suspended a patient, made a plaster mould on the nude body, and from this mould made a solid plaster cast, over which he constructed the paper jacket out of the best manilla paper. Successive layers of paper were put on and made to adhere by varnish, shellac and various cement materials, until a thickness of about three thirty-seconds of an inch was obtained. The weight was scarcely 14 ounces. Accord-

ing to the deformity to be treated, he padded the plaster cast at projecting points and cut it down at others on the opposite side, so that in time pressure reduced the projecting deformity and filled up the opposite cavity in the body of the growing subject. When the jacket was removed it was replaced during suspension. Many persons, especially girls, who refused to wear the plaster and other jackets or apparatus because of their clumsiness and weight, submitted to the application of the paper jacket early and with pleasure, because of its lightness, accurate fit, as if it were a corset, and because of the marked comfort which it afforded. It was well known that the weight of the jury-mast or other support attached to the plaster jacket, tended to break it down. The paper jacket being very strong, easily withstood the strain. Dr. Hawkes knew of no disease of the spinal column to which it was not applicable. It was important that it extend well down over the hip, say to the inferior spinous process, else the superincumbent weight of the body would cause pressure pain along the lower border. The importance of a snug, light, well-fitting, strong jacket, the wearing of which would not be objectionable to the most fastidious patient, was shown by the fact that an eminent surgeon had estimated that 1 p. c. of the population had some defect of the spinal column. Among the patients shown by the author were some of sensitive spine in neurotic subjects, railroad spine, and deformities from other injuries, lateral curvature, etc. None with Pott's disease happened to be present.—*Medical Record*.

Dr. Baker, of Harrodsburg, Indiana, delivered a child in November, 1893, having an umbilical cord fifty-two inches long.—*Medical Brief*.

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Editorial.

THE CAUSE OF DEATH FROM CHLOROFORM.

At a recent meeting of the Royal Medical and Chirurgical Society, Surgeon-Lieutenant-Colonel Lawrie made a report as to the Results of the Hyderabad Chloroform Commission. He holds that the experiments made by the Commission and others made since, proved that death during chloroform anæsthesia is due to paralysis of respiration, and not to action of the chloroform upon the heart itself. He exhibited tracings which showed that in that experiment the pulse did not show any evidence of flagging for three minutes after cessation of respiration, and that the life of the animal could have been saved during that time by the practice of artificial respiration. Had the pulse been taken as the guide, the sign of danger would not have been noticed until the animal was probably past recovery. In regard to the statements of certain anæsthetists that they have observed cases in which the heart failed completely, though

the respiration previously and at the time was normal, he claims (1) that if the pulse is taken as a guide, the administrator's attention is necessarily divided between it and the breathing, and respiratory changes which lead to the cardiac arrest and to indirect heart failure, may, therefore, be overlooked; and (2) that reliable experiments have proved that reflex stoppage and indirect failure of the heart can never be produced under chloroform, except by interference with the breathing.

Mr. Victor Horsley, was persuaded from a very large experience in the administration of chloroform that in the vast majority of cases death was due to arrest of perspiration. Dr. Lauder Brunton said that chloroform acts as a protoplasmic poison, and will destroy every living thing with which it is brought in contact in sufficient quantity. It will act on muscle tissue, making it as hard as a board, and will do the same in the case of the heart when brought into contact with it.

The question is, can this be done when

administered by inhalation? The general conclusion, derived from experiments, was that, given in this way, the respiration is paralysed before a sufficient quantity could be taken to paralyse the heart, which goes on after the respiration has ceased. He thought if we disregard the respiration and take the pulse as our guide, we are in the same condition as the driver of an express engine who does not regard the distance signal, which would have allowed him time to avoid the danger, and does not stop until he gets close up to the danger itself.

The practical conclusion to be derived is that in the administration of chloroform the administrator should give his undivided attention to the respiration and regulate the dose by the better or worse performance of that function. Surgeon-Lieut.-Colonel Lawrie claims that one of the points brought out by the experiments is that chloroform anæsthesia alone, and that is all the chloroformist ever wishes to produce, is free from risk; that if the chloroform is not pushed beyond the point where anæsthesia is complete, the patient or animal never comes within the sphere of danger at all.

Dr. Lauder Brunton said he had been investigating the cause for the increased mortality from chloroform which has characterized latter years, and his conclusion is that it is due to the increased meat consumption following the low-priced refrigerator meats imported from America.

GASTROPLICATION.

A new operation for gastric dilatation has been described by Dr. Joseph Brand under the above name. It is applicable to those cases in which the dilatation is not due to stenosis at the pyloric orifice from the pressure of abnormal growths

or from cicatricial tissue. The feature in the operation is the formation of a fold in the wall of the viscus and suturing of the peritoneal and muscular coats. The operation has been done successfully and the technique is thus described:

"The abdomen was opened by an incision eight centimetres in length and parallel with the border of the ribs on the left side. The stomach was then sought for, eventrated by slow traction, and the pyloric region carefully examined. No tumor, cicatricial deposit or adhesions could be discovered at this place, but a distinct flexion had resulted in consequence of the sagging down of the greater curvature. The anterior stomach wall was then folded inward and sutured in a transverse direction and to the right and left of the transverse fold a longitudinal fold was formed in like manner. The same proceeding was carried out on the posterior gastric wall, which was rendered accessible by making several slits through the greater omentum, through which the organ was drawn. It was found easy to lift the muscular and peritoneal layers from the mucous membrane which could be felt as a thick seam. Over two hundred sutures of catgut and silk were inserted and the stomach was then returned to the abdominal cavity. Aside from the wounding of an arterial twig of the arcus vasculosis during the insertion of sutures in the posterior gastric wall, no accidents were encountered during the operation, which was followed by a most rapid recovery."

BOARD OF HEALTH BULLETIN SECOND-CLASS MAIL MATTER

For some time the *Bulletin* of the Board of Health has been mailed with a one-cent stamp attached to each copy.

it could not be mailed as second-class matter because it had no *bona fide* paying subscription list, and it will be remembered how our energetic Secretary went to work to build up a subscription list of sufficient magnitude to entitle the *Bulletin* to the privileges of second-class postage. The matter has been so settled, however, that a paying list of subscribers is no longer necessary. Dr. J. Berrien Lindsley, the Secretary of the Tennessee Board of Health, tiring of correspondence on this subject with the Third Assistant Postmaster General, which seemed to be accomplishing nothing, turned to Congress for aid, and, through the able efforts of that ideal congressman, Hon. Joseph E. Washington, had the Postoffice Appropriation Bill amended so that it now reads as follows: "That from and after the passage of this Act, all periodical publications issued from known places of publication at stated intervals, * * * including the bulletins issued by State Boards of Health, shall be admitted to the mails

as second-class matter, and the postage thereon shall be the same as on other second-class matter, and no more."

This is very proper, and we are glad to see these useful publications relieved from their unjust burden; but, as we have said before, they should be carried through the mails free of all charges. They are intended for the information and education of the general public, and should be encouraged in every way possible. Matters that affect the health and lives of the people are, without question, as far-reaching in importance as those pertaining to the weather and the raising of crops, and yet these latter are mailed for free distribution in franked wrappers. We hope and expect to see passed, in the not distant future, such laws as will recognize the importance and usefulness of these publications and give them a place on the free list. In the meantime thanks are due to Dr. Lindsley for suggesting, and to Mr. Washington for having enacted, the wise amendment alluded to.

Reviews and Book Notices.

An International System of Electro-Therapeutics, for Students, Practitioners and Specialists. By HORATIO R. BIGELOW, M.D., and Thirty-eight Associate Editors. Thoroughly illustrated. In one large Royal Octavo volume, 1160 pages, Extra Cloth, \$6.00 net; Sheep, \$7.00 net; Half-Russia, \$7.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

Of the works on this subject which have appeared, this is the most complete and exhaustive, and stands in evidence also to the rapid progress which is being

made in this branch of medical science. The subject is opened by Dr. William J. Herdman, with a paper on The Necessity for Special Education in Electro-Therapeutics. He says "the surgeon and the ophthalmologist, the dentist and the gynæcologist—in fact, the specialist in whatever field—finds it a valuable aid to treatment, an indispensable handmaid."

In regard to an agent which has received systematic study for so short a while, and which is so mysterious in its

action and so apparently unlimited in its power, it is not surprising that results obtained by careful workers should be received with doubts and misgivings by those who have paid no attention to the subject. Though it will be but natural that the rapid advances in the knowledge of electro-therapeutics will require the publication of frequent volumes, that the general practitioner may keep abreast of these advances, the completeness of the present work, coming, as it does, from the hands of the recognized authorities of the day, will doubtless make it the standard reference book for years. The gentlemen whom the editor has called to his assistance are men of established reputation, who are entirely trustworthy in their observations and thoroughly competent.

A feature which will be of much service to the student and general practitioner, who is often at a loss as to which of the many forms of apparatus is the most desirable, is a tabulated statement of each associate editor's preference in regard to cells, batteries, coils, meters, etc. Electro-Physics, by Dr. A. Wilmer Duff, is clearly and thoroughly presented. The section on the Faradic Current, Electro-Magnétism, Electro-Massage and Instruments is under the management of Dr. George J. Englemann. This section is liberally illustrated by cuts of apparatus and diagrams.

The therapeutic application of electricity is treated of under several sections—Electro-Diagnosis, by Dr. W. F. Robinson; Diseases of the Uterus, by Dr. G. Betton Massey; Uterine Fibroids, by Drs. Grand and Famarque, Paris; Diseases of the Uterine Appendages, by Dr. A. H. Goelet; Diseases of the Skin, by Dr. Plym. S. Hayes; etc. Separate sections, from equally as eminent sources, are presented on the treatment

of diseases of the nose, eyes, brain, spinal cord, etc. Dr. Mary Putnam Jacobi has a section on Electricity in Diseases of Childhood.

As was stated in the outset, this is the most complete work on electro-therapeutics yet published, and will serve for many years, certainly with occasional revisions, as the standard authority. The volume is well printed and well bound.

Charaka Samhita. Translated into English and published by Avinash Chandra Kaviratna. D. C. Dass & Co., 200 Cornwallis Street, Calcutta, 1894.

This work goes on and we have received the ninth fasciculus. This part embraces lesson xxiii., which explains the incidents relating to Santarpana, or indulgence in food and acts that are both sedative and nutritive; lesson xxiv., treating of the nature and characteristics of the blood; and lesson xxv., devoted to the discussion of the various theories of the creation of man.

The interest attached to this really remarkable book increases as the work of the translator goes on. Each new fasciculus brings new surprises at the knowledge possessed by those ancient physicians. It possesses a fascination which makes one read on, and fills him with wonder and admiration. The explanatory foot-notes by the translator are indispensable to a thorough understanding of the text.

One Hundred Years of Business Life. 1794-1894. *Respice, Adspice, Prospice.* W. H. Schieffelin & Co., New York.

A century ago John B. Lawrence and Jacob Schieffelin entered into partnership and opened a store at 195 Pearl street (then Queen), for the carrying on of a wholesale and retail drug business.

In 1799 Lawrence withdrew and Schieffelin continued, soon taking into partnership his son. From that date the family have been in control of the business.

The present firm have issued an attractive volume giving a complete history of the house from its beginning to the present time.* It has afforded us much pleasure to read this narrative, telling how the house has withstood the calamities of wars and overcome the disasters caused by panics, and have made for themselves an enviable reputation for honesty, integrity and square dealing. We extend our congratulations and bespeak continued prosperity to the firm which has at its head a man who, in the height of his temporal success, does not forget to be mindful of the things that are eternal.

Diseases of the Skin; An Outline of the Principles and Practice of Dermatology. By MALCOLM MORRIS, F.R.C.S., Surgeon to the Skin Department, St. Mary's Hospital, London, etc. In one 12mo. volume of 556 pages, with 19 chromo-lithographic figures and 17 engravings. Cloth, \$3.50. Philadelphia: Lea Brothers & Co., 1894.

Dr. Morris has presented a book which will meet with a satisfactory reception from a large proportion of the general profession. While it is not such a pretentious volume as will meet the demands of the specialist, it presents the subject of diseases of the skin in a style which will prove useful to the general practitioner in a higher degree than is the case with many of the larger works. We can especially commend as very useful the chapter on Principles of Diagnosis. The illustrations are not numerous and have generally the fault that so often belongs to illustrations—they are made from very unusual and exaggerated cases, and are therefore useful chiefly as curiosities.

Obstetric Surgery.

The well-known house of The F. A. Davis & Co., of Philadelphia, will issue, in September, a work which will be most favorably received by the medical profession. It is entitled *Obstetric Surgery*, and is written by Drs. Egbert H. Grandin and George W. Jarman, gentlemen who, from their long connection with the largest and most widely known maternity hospital in the United States (The New York Maternity Hospital), are peculiarly fitted to expound the subject from the modern progressive standpoint of election.

The work having been prepared from a teaching standpoint, the terse text is elucidated by numerous photographic plates and wood-cuts, representing graphically various steps in operative technique. The student and the practitioner, thus, not alone may *read* what to do, but may also *see* how to act.

The work is not burdened with literature references. The authors have aimed to teach that which ample and prolonged experience has taught them is good. The net price of the volume will be \$2.50, and it will be printed in large clear type, on excellent paper, and handsomely bound in extra cloth. The full-page plates, about 14 in number, will be printed on fine plate paper in photogravure ink.

A companion volume, dealing in the same terse, practical manner with pregnancy, normal labor and the physiological and pathological puerperium by the same authors.

CALCIUM CHLORIDE AS A HEMOSTATIC.—Dr. Saundby (Birmingham) records cases of rectal hemorrhage and purpura hæmorrhagica in which five six-grain doses of chloride of lime arrested hemorrhage after other measures had failed. —*Birmingham Medical Review*.

Correspondence.

GLYCERINE IN DROPSY.

To the Editor of the North Carolina Medical Journal :

My attention has been called to a new use for glycerine, which may prove to be of some value in the treatment of certain kinds of œdema. The case in point is one now under my care in the marine wards of Mercy Hospital, service of Dr. B. W. Brown, United States Marine Hospital Surgeon, port of Pittsburgh. The patient is a sailor, 50 years of age, who has led a typical sailor's life, having worshipped devoutly, as Professor Osler would express it, at the shrines of Venus, Bacchus and Mars. The rest of the history is uninteresting. Suffice it to say that when I saw him over two months ago he presented the characteristic picture of general dropsy—dyspnœa, puffy eyes, large abdomen, distended legs, swelled scrotum. Further physical examination showed empyema, a dilated heart with weak sounds, but no murmur. Owing to the distention of the abdomen it was impossible to ascertain correctly the state of the liver. The urine contained some albumen and a few hyaline casts. It is not my intention to dwell upon the general treatment of this case, and therefore it will only be necessary to say that the usual management of such conditions was carried out with varying success.

On one occasion Dr. Brown suggested that I should try the effect of external applications of glycerine, a plan which he had seen recommended for such a condition, but which, like many things so highly lauded in print, he took with a "grain of salt." However, the idea seemed within the bounds of reason,

and the experiment was made. Pieces of lint were saturated with glycerine and laid upon the part, then wrapped loosely with a bandage and allowed to remain all night. These applications were made to the ankles, knees, thighs and scrotum, successively at first, and afterwards to all these parts simultaneously, keeping it up for four or five days. At the end of this time the swelling had almost completely disappeared from the scrotum and the legs and ankles were decidedly better—not so tightly distended and pitting very slightly on pressure. The improvement was most marked in the case of the scrotal œdema, where probably the thin and porous folds of skin aided the action of the remedy.

It is difficult to say whether this improvement was due wholly to the glycerine applications—nor is such claimed for it—as the patient was taking, at the same time, a pill which I have found very efficient in the case since. The formula is as follows:

℞—Hydrargyri chloridi mitis, gr. vj
Pulveris digitalis..... gr. xii
Strychniæ sulphatis..... gr. ss
Misce et fiant pilulæ, No. xii.
Siquæ: One pill three times a day.

However, in order to test the value, if any, of the glycerine, it was applied at another time, when the patient was taking no medicine besides an occasional purgative—and apparently the same result was obtained. But certainly the external use of glycerine was not depended upon in *this* case. He has since done well under the administration of the above pill and the careful use of salines and diuretics, aided, no doubt, by the applications of glycerine externally. This was not a typical case for

the employment of the glycerine. The patient was water-logged as the result of one or more chronic conditions. His liver has since been examined and is considerably atrophied. The cases best adapted for this treatment are those obscure conditions of local œdema that resist all other measures. A medical friend here has just reported to me a case of this kind in which, at my suggestion, he employed, with perfect success, the external application of glycerine in a local œdema of the ankle for which no cause could be assigned and which had refused to yield to other methods of treatment. This is the class of cases in which it is said to be most useful.

The theory of this use of glycerine is a plausible one. It is based, correctly enough, upon the well-known hygroscopic action of this substance, a property which is made use of in many branches of medicine. The gynecologist saturates his tampon with it and

thereby relieves the congested womb by depleting the pelvic circulation. It is applied to sore throats and sore noses for the purpose of drawing the serum from the turgid vessels by means of its affinity for water. The only objection that may be offered to its use in dropsy is that, in these latter conditions, its action is through mucous membrane, while in œdema it must be through the thicker skin. It was claimed that, after twelve hours, the lint on which the glycerine was applied would be saturated with water drawn from the tissues. No such ideal result was obtained in any trial I made of the remedy, though the serum had certainly disappeared somewhere. The theory seems reasonable; its practical application has not been thoroughly tested. At any rate, it can do no harm and apparently does good.

Yours, etc.,

HUBERT A. ROYSTER, M.D.,
Resid't Phys'n Mercy Hospital.
Pittsburgh, Pa., September, 1894.

Notes of Practice.

LET the babies have fresh air. Do not cover their heads when asleep. It causes them to breathe over and over again the air taken into the lungs. It is just as healthy for you to drink the water you wash in as to re-breathe the air. To keep the flies off a mosquito netting can be used, but kept well up from the baby's face. In winter the air of the living room is sufficiently warm.—*Kansas Med. Jour.*

TREATMENT OF TAPEWORM.—Ogilvie (*The Lancet*) has had successes in 13 consecutive cases with the following

treatment: The patient having been prepared by dieting for four or five days, is given the night before the vermifuge is to be administered a purgative of magnesium sulphate and tincture of jalap. If this has not acted the succeeding morning, a second dose is given at 7 o'clock. The saline purges remove the excess of mucus and permits of freer absorption of the vermifuge by the body of the worm. At 8 o'clock a drachm of the extract of male fern is given, followed by a second drachm one hour later. This is followed by a full dose of castor oil at 11 o'clock, whether

the worm has passed or not. The head is carefully searched for, but an interval of four months without any of the pro-glostides appearing in the evacuations should elapse before a cure is surely claimed.

THE SALICYLATES IN RHEUMATIC PERITYPHLITIS.—Dr. A. Haig (*La Semaine Médicale*, No. 40, 1894) is of the opinion that rheumatic perityphlitis, recently described by Professor Burney Yeo, is far from being rare. Haig has observed a number of these cases, which he terms gouty perityphlitis or intestinal gout, where the salicylates have yielded brilliant results. He has also seen a case of general chronic peritonitis treated in vain for several months with morphine (quite rational!), where it was completely cured in a few days by the salicylate. The writer even goes so far as to state that the majority of cases of perityphlitis are of a gouty nature. If more of the salicylates were given early in appendicitis fewer surgical operations would be necessary.—*Lancet-Clinic*.

AN OINTMENT for rheumatic joints is as follows:

R.—Salicylic acid.....	℥ iij
Lanolin.....	℥ iij
Oil turpentine.....	℥ iij
Lard.....	℥ iij

On the application of this salve Bourget claims that the pain is rapidly diminished, and also thinks some of the salicylic acid is absorbed.—*Ex*.

ESERINE.—Dr. Edward Jackson (*Phil. Polyclinic*) recommends a more general use of weak solutions of eserine by the general practitioner. The chief indications for its use are: Glaucoma, with dilated pupil that the eserine can cause to contract; corneal ulcer; interstitial

keratitis *without* iritis; paresis of accommodation; mydriasis; cataract, confined to the peripheral cortex; measuring refraction with irregular astigmatism; to prevent prolapse of the iris into a peripheral wound or incision in the cornea, and in certain chronic degenerative processes as retinitis pigmentosa and choroidal atrophy. In strong solution it causes pain by its intense stimulation of the sphincter of the iris. The solution to be commonly employed is:

Eserine sulphate.....	gr. $\frac{1}{8}$ or $\frac{1}{4}$
Distilled water.....	f ℥ i

A single drop to be instilled as often as required. In cases of glaucoma where this fails to cause contraction of the pupil, or in prolapse of the iris, where it fails to effect a reduction, a solution of 1 or 2 grains to the ounce may be used. On the other hand, when weaker solutions produce sufficient action, they are to be preferred.

STROPHANTHUS IN ALCOHOLISM.—Strophanthus, like digitalis, appears to be sometimes of value in cases of alcoholism. Dr. Skworzow publishes an account of an old man who was corpulent and had a weak heart and intermittent pulse. He was a confirmed drinker. After being put upon seven-drop doses of tincture of strophanthus three times a day, he felt very sick and began to dislike alcoholic drinks, which dislike, fortunately, became permanent. Two other similar cases were likewise successfully treated in the same way. In all these the immediate effect of the strophanthus was to produce nausea and profuse diaphoresis, results which are unusual when this drug is given in ordinary cardiac cases. It may be remarked that though alcohol was suddenly discontinued in these three cases, no evil result followed.—*The Lancet*.

THE REASONS WHY THE ABDOMINAL
BANDAGE SHOULD NOT BE USED
AFTER LABOR.

1. It is unnatural.
2. It is liable to become soiled and hence a harbor for microbes.
3. It increases irritation of the tired and overworked abdominal organs.
4. It interferes with the necessity of frequent antiseptic ablutions.
5. It is difficult to keep in place, unless made to order.
6. It binds down the weak uterus and promotes the return of a displacement or a sub-involution.
7. It predisposes to puerperal and cerebro-spinal centers.
8. It increases rather than diminishes the danger of post-partum hemorrhage.
9. It prevents digestion, assimilation and intestinal peristalsis, and tends to bladder trouble.
10. It is unsafe for any one to apply it except the accoucheur or an experienced

nurse.—W. B. CONWAY, in *South. Med. Journal*.

NEURALGIA.—For stubborn neuralgia try the following :

R̄.—Antipyrin..... ʒ iss
Caffeine..... ʒ ss
Ext. cannabis Ind.,
Ext. aconite.....aa, gr. iiss
Hyoscyami hydrob'mat, gr. ʒ
M. et ft. caps. No. xxx.
Sig. One every two or three hours.

IDENTIFICATION OF THE INTESTINE.—
DaCosta (*Med. News*) points out that, on opening the abdominal cavity, the discrimination between the large and small intestine can be promptly made by passing the finger around the presenting portion until it reaches the peritoneal attachment, and, following this, back to its origin. It is found that the mesentery arises from between the left side of the second lumbar vertebra and the right sacro-iliac joint, while the meso-colon will lead the finger posteriorly to quite a different location.

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Dr. M. W. Gibson, of Taylorsville, died recently at his home.

The death-rate in typhoid fever in sewered and unsewered cities is as $2\frac{1}{2}$ to 10.

We regret to learn of the death of Dr. Patrick Booth, of Oxford. Dr. Booth was a member of the State Medical

Society and for some years Superintendent of Health of his county.

We are in receipt of a Semi-Centennial Speech by the Hon. J. G. Ramsay, M.D. It is an interesting address, reciting briefly the causes which led to the Declaration of Independence and the secession of the Southern States. It was delivered July 4th, 1894, at Sum-

merville, Rowan county, at which place the same gentleman delivered an oration just fifty years previous.

Dr. F. J. Haywood, one of the leading physicians of Raleigh, recently operated upon himself for the removal of a bullet which was lodged in his knee during the civil war.

Dr. W. H. Cobb, Jr., who has been connected with the North Carolina Insane Asylum for some time past as Assistant Physician, has returned to his home at Goldsboro, where he will begin practice.

Mr. Gladstone's right eye, upon which an operation for cataract was performed, will require a needle operation. With the left eye, which is affected with immature cataract, he can still, under the influence of a weak solution of atropine, see to write and read good print moderately well.

The Japanese are scrupulously clean. The common workmen bathe the whole body once a day, and some of them twice. Public baths are provided on every street. The baths are warm, being about five by eight feet and three feet deep. They are fed by a constant current of cold and hot water. The bather plunges in, remains immersed some ten minutes, then comes out and receives a warm douche of fresh water. May our civilized country not learn something from these people to whom we are sending missionaries?

The American Public Health Association will hold its 22d Annual Convention at the city of Montreal, Canada, September 25th, 26th, 27th and 28th. The regular sessions will be in Association Hall, Y. M. C. A. Building, Dominion Square, opposite the Hotel Windsor.

The following topics have been selected:

1. The Pollution of Water-Supplies.
2. The Disposal of Garbage and Refuse.
3. Animal Diseases and Animal Food.
4. The Nomenclature of Diseases and Forms of Statistics.
5. Protective Inoculations in Infectious Diseases.
6. National Health Legislation.
7. The Cause and Prevention of Diphtheria.
8. Causes and Prevention of Infant Mortality.
9. The Restriction and Prevention of Tuberculosis.
10. Car Sanitation.
11. The Prevention of the Spread of Yellow Fever.
12. On the Education of the Young in the Principles of Hygiene.
13. Private Destruction of Household Garbage and Refuse.
14. Disinfection of Dwellings after Infectious Diseases.
15. Infection of School Children with reference to the Eyesight.

Papers will be received on miscellaneous sanitary and hygienic subjects, but preference will be given to the topics announced above.

HEALTH OF WILMINGTON.—The following is the mortuary report for Wilmington for the month of August, 1894:

	Whites.	Col.	Total.
Population.....	9000	13000	22000
Deaths.....	6	24	30
Death-rate represented..	8.00	22.1	16.4

Meteorological. — Mean temperature, 78°; highest temperature, 95°; lowest temperature, 65°; clear days, 16; partly cloudy, 5; cloudy, 15; days in which rain fell, 13; total precipitation, 4.23 inches; mean dew point, 73; mean relative humidity, 91; mean barometer, 30.04.

VACCINATION.

To vaccinate or not? That is the question :

Whether 'tis better for a man to suffer
The painful pangs and lasting marks of
small-pox,

Or to bare arms before the surgeon's
lancet,

And, by being vaccinated, end them?

Yes,

To feel the tiny point, and say we end
The chance of many a thousand scars

That flesh is heir to; 'tis a consumma-
tion

Devoutly to be wished. Ah! soft you
now,

The vaccination! Sir, upon your rounds,
Be my poor arms remembered.

—Puck.

COCAINE IN HICCUGH.—Heidenhain reported recently a case of obstinate hiccough in a man, aged 72, suffering with intestinal carcinoma, in which cocaine gave relief after all other remedies had failed.

Consumption is most common in Belgium, Scotland and Canada.

Obituary.

Professor WILLIAM CECIL DABNEY, M.D.

Death has the second time, during the present session, visited the medical faculty of the University of Virginia. It is our painful duty to chronicle the decease of Professor William Cecil Dabney, M.D., which occurred at 4 o'clock on the afternoon of August 20th.

Professor Dabney was born at "Dunlora," in Albemarle county, on the 4th of July, 1849, and had therefore just entered his forty-sixth year when called to lay down life's burden.

He graduated from the Medical Department of the University of Virginia in 1868, being only nineteen years of age, and four years later gave evidence of the thoroughness of his training and his own natural ability by winning the Boylston prize, awarded by Harvard and open to the profession of Europe and America. He has been conspicuous in the medical world, not only on account of his official connection with the great University in whose service he died, but

through his numerous contributions to the medical journals of the country, the general excellence of his contributions causing them to be liberally copied and quoted from.

It was principally through his influence and endeavor that the Legislature of Virginia, in 1884, enacted laws establishing a Board of Medical Examiners, and he was chosen as the first President of the Board, which office he held until 1886, when he resigned to accept the Chair of Practice of Medicine, Obstetrics and Medical Jurisprudence in the State University. This position he held until his death.

As a teacher he was impressive, forcible and clear, and embodied in his lectures much original thought. As a practitioner he stood easily among the leading physicians of his State, being ready and accurate in diagnosis, and in treatment cool, capable and resourceful.

As one who knew him well, who has sat at his feet and received instruction from his lips, who has enjoyed his generous hospitality and been a witness to the spirit of Christian love which ruled his home, we feel assured the University and State of Virginia could not have lost a more useful servant and loyal son, and no people a truer friend.

While an able man in his profession and a hard student, he did not neglect

the things which are eternal, but carried his religion into his daily life, influencing for good those with whom he came in touch. He died a vestryman and a consistent member of the Episcopal Church.

A wife and seven children are left to sorrow for the death of a devoted husband and father, and to them we extend our most sincere and respectful sympathy.

Reading Notices.

There is no doubt about the value of *CACTINA PILLETS*. In heart troubles, especially those of neuralgic character, weak heart, exhausted energies, some neurologies and nervous prostration, *CACTINA PILLETS* will prove curative.

JOSEPH C. ELLIS, A.M., M.D.
Frankford, Philadelphia, Pa.

I have given *PEACOCK'S BROMIDES* a thorough trial, and have since then invariably prescribed it in preference to other preparations of its kind. During my trip across the ocean I gave it to several passengers who suffered a great deal from sea-sickness, with very beneficial results.

J. WILMOTH, Ph.D., M.D.
New Orleans, La.

DR. ANGELO DE BELLOMI, of Citta di Amandola, Italy, July 22d, 1893, says: "I am pleased to inform you of the successful results by the use of your *BROMIDIA* as hypnotic and sedative. I prescribed it for a lady suffering from severe vomiting due to pregnancy, and which threatened to cause abortion from denutrition. I had previously tried opium, chloroform, creosote and oxolate of cerium, all without effect. I gave ten drops in a little sweet wine three times a day before meals. The vomit-

ing ceased the first day, four days later I was able to discontinue the use of *BROMIDIA*, and now, after a month, there has been no return of the vomiting, and the patient is perfectly well.

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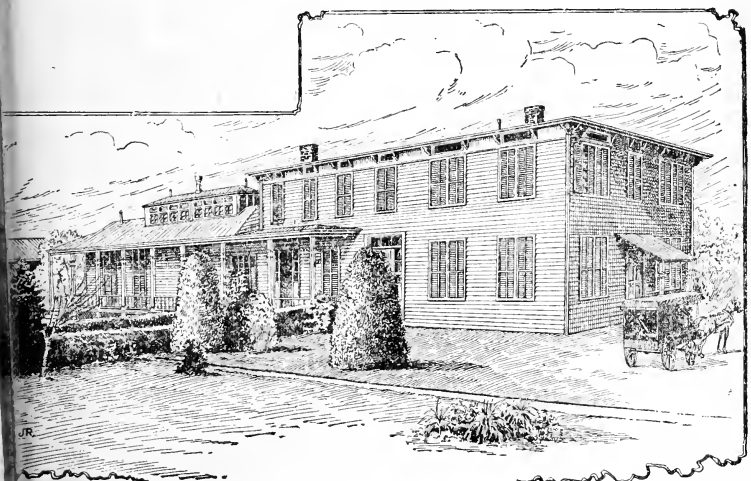
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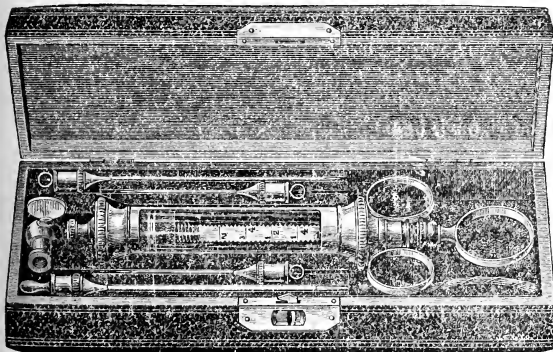
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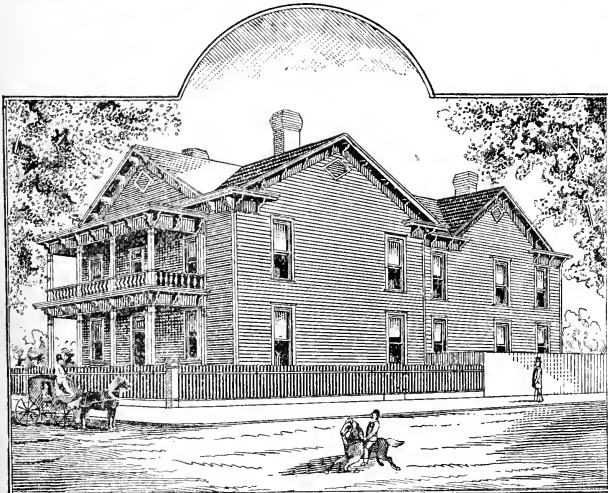
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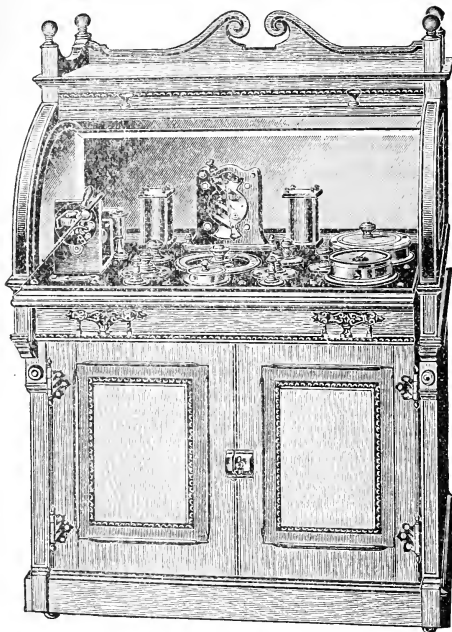
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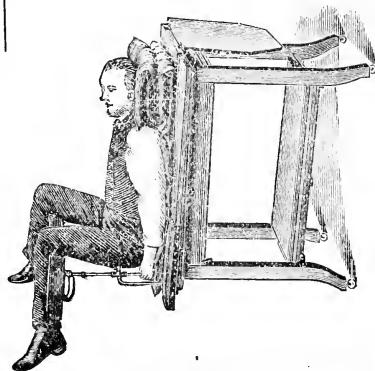
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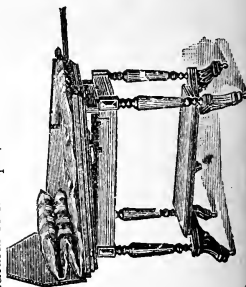
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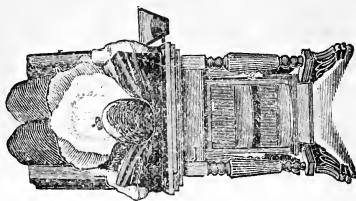
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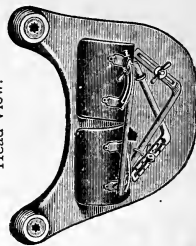
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Table of Contents, - - Page 5.)

Index to Advertisers, - Page 6.)

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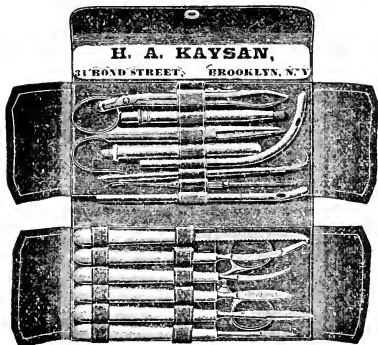


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Table of Contents.

Original Communications :

Some Critical Points in Eye Practice.— <i>K. P. Battle, M. D.</i>	147
Hæmatoma of the Sacrum.— <i>H. O. Hyatt, M. D.</i>	153
The Rational of Hydrotherapy.— <i>Simon Baruch, M. D.</i>	154
Poisoning from Spider Bite— <i>R. H. Lewis, M. D.</i>	167

Selected Papers :

The Operative Treatment of Internal Hæmorrhoids as Practiced by Ameri- can Surgeons.....	168
--	-----

Abstracts :

Treatment of Croupous Pneumonia ; Cactus Grandiflorus	173
Treatment of the Pedicle after Myec- tomy.....	174
Whale's Milk.....	175
Ether and its Relation to the Kidney... ..	176
Etiology of Carcinoma ; Treatment of Dyphtheria.....	177

Editorial :

Treatment of Inoperable Malignant Tumors with the Toxine of Erysipe- las and the Bacillus Prodigiosus.....	178
Meeting of the Board of Health at Salisbury.....	180

Reviews and Book Notices :

About Mushrooms.— <i>Palmer</i>	182
An American Text Book of the Di- seases of Children.— <i>Starr</i>	183
An Illustrated Dictionary of Medicine, Biology and Allied Sciences.— <i>Gould</i> .	184

Notes of Practice :

Dietetics of Phthisis ; Cocaine.....	185
Epididymitis ; Cystitis ; Simple Bath- tub	186

Miscellaneous Items.....

Obituary:.....	191
Reading Notices.....	193

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Index of Advertisers.

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SOME CRITICAL POINTS IN EYE PRACTICE.

BY KEMP P. BATTLE, M.D., Surgeon, with DR. R. H. LEWIS, to the Eye, Ear, Throat and Nose Department of the Rex Hospital, Raleigh, N. C.

(Read before the Wake County Medical Society, August 15th, 1894.)

When I was invited by the Society to read a paper on a subject in one of my special lines of work, our President remarked that what was wanted was not the presentation of rare cases or the discussion of some matter of interest mainly to specialists, but something that would be of more assistance to the busy general practitioner in his ordinary work. I have decided to bring together into one view some of the diseases of the eye in which a mistake in diagnosis or management would result in injury to the sight or loss of the eye or of life. And since the subject covers such a wide range and this paper must be short, will confine my remarks to the more

necessary and vital points involved, merely, as it were, to raise the signal of danger and point the way out. For detailed and elaborate help we must go to the books.

I freely acknowledge that there may be nothing in what is to be said that is not already known to you all, but there is always an advantage in emphasizing by repetition and discussion facts that it may be of great consequence any day to have clearly in our minds. Some physicians go so far as to say that they know nothing of the eye, but whether they really mean this or not, it is true that those who are modest in their conception of their ability to manage eye

cases are just those into whose hands it is safest for an eye patient to fall, rather than to the care of men who, with no real knowledge of the subject, direct the treatment in a cock-sure, off-hand way, that may end in disaster. It cannot be denied that serious mistakes are sometimes made even by members of the profession, but it is the ignorance that neglects to consult a doctor at the proper time to which is to be attributed most of the great number of cases of blindness in our State that might have been prevented. Efforts to hasten the coming of the millennium by teaching the people the proper care of themselves seems a hopeless task, but by taking advantage of every opportunity we may at least expect to save some eyes that otherwise would be lost.

OPHTHALMIA NEONATORUM.

Naturally the first disease to be noticed is ophthalmia of the new-born. Fuchs states that in the asylums of Germany and Austria it is the cause of more than one-third of all cases of blindness. In North Carolina the proportion is nothing like this, but it is within bounds to say that it is certainly one of the most prolific of the causes of loss of sight. The typical virulent form of the disease is due to infection from a gonorrhœa of the mother, but still dangerous, though less severe, cases may be caused by any non-specific vaginal discharge. How far it is a *preventable disease* may be seen by a glance at a table of statistics given by Dr. Lucien Howe, of Buffalo, to whose efforts are largely due the present movement in this country to lessen its ravages by State legislation. In more than 8,000 births reported by different observers in which no precautions were taken, the disease developed in 8.66 per cent. of the whole, while in about the same number of births after the approved

method of prevention was adopted the proportion of cases fell to 0.65 of one per cent. This method, known as Credé's, is very simple: antiseptic precautions before and during delivery—at least washing out the vagina with a bichloride solution, the careful cleansing of the child's eyes immediately after birth, the instillation into them one time of a 2 per cent. (gr. x to $\bar{\text{z}}$ i) solution of nitrate of silver to destroy the elements of contagion that may have gained entrance during delivery, and care that no contamination from soiled linen or hands occurs afterwards. The use of the silver solution, which is the essential point in the treatment, seems severe, but it has been amply proved perfectly safe. In the opinion of Howe it is next to criminal negligence for any practitioner to omit it in any case anywhere. We may at least lay down the rule that Credé's method should be employed at every birth in which the mother has or has lately had any kind of morbid vaginal discharge. Otherwise the physician in whose practice ophthalmia of the new-born occurs will have reason to reproach himself. Of course the silver instillation does not guarantee the eyes against subsequent inoculation, and if this is allowed to occur one eye only may be involved. In this case the child should never lie on the side of the sound eye, and other precautions for its escape from contagion should be enforced.

The next point of danger is the liability to neglect the condition of the child's eyes till the disease is well established and the eyes probably beyond rescue. It is here that the ignorance of the midwife and friends of the patient produce such lamentable results. We have seen several cases of blindness from this cause here in our own town, more commonly among the colored. "I thought the child had cold in its eyes,"

is the usual story. Treatment, if prompt and thorough, fortunately will prevent the dreaded corneal complications and save the sight in the great majority of cases. The application of cold in the right way in the beginning, the frequent cleansing with an antiseptic lotion and the right use of nitrate of silver at the proper time are the main factors.

PURULENT OPHTHALMIA OF THE ADULT.

We pass now to blenorrhœal ophthalmia in the adult, almost invariably due to contamination from gonorrhœa or gleet or a similarly affected eye, by way of fingers, water, towels, handkerchiefs, or any means by which the virus may directly or indirectly gain an entrance. That it is not still more common than we find it to be must be due to the fact that physicians generally are careful to warn their gonorrhœal patients of the danger there is of conveying the disease to their eyes and of the fearful results likely to follow such a catastrophe. A patient with gonorrhœa, or, be it noted, of gleet, should have the danger of contagion and the fear of blindness constantly before his mind and should dread the touch of the discharge or of anything defiled by it. Also, he should remember that he is a danger to his friends as well as to himself. Scrupulous cleanliness at all times, and if the hands have been necessarily contaminated the cleanliness of the surgical aseptic standard should be the rule. When one eye is already involved a device of value for the safety of the other is the use of Buller's shield, which should be kept fastened with special care on the nasal side.

The disease is even more virulent and the outcome far more doubtful than in the case of the infant. The best oculists have sometimes to lament the failure of their most earnest efforts to stay its

progress. I once knew a nurse who had lost her own eye as the result of the splashing of the liquid while cleansing that of a patient—and that, too, in the eye ward of a hospital. But I am not able to say whether or not the Credé solution of nitrate of silver was used immediately after the accident. Probably not.

Careful and vigorous treatment, similar to that of ophthalmia neonatorum, may, however, save the vision. Into its details it is not necessary within the scope of this paper to enter, but there is one point in connection with this, as well as all inflammations of the conjunctiva, that should be noted, namely, that the use of caustics should be regulated by the amount of purulent discharge. When it is not present they are contraindicated, and when it is present the more profuse the discharge the stronger should the caustic be, with care that the solution, except when quite weak, does not reach the cornea—especially if that structure is itself diseased.

INTRA-OCULAR TUMORS.

Returning, now, to the diseases of childhood, we must notice one peculiar to early life, which, though not common, it is necessary to keep in mind an account of the fatal results to life itself which follow when it is neglected. This is *glioma of the retina*, a malignant intra-ocular growth. It may be congenital, but usually begins in the first few years after birth and is generally confined to one eye. At first no pain or inflammation is present, but there is blindness, a dilated pupil and a peculiar whitish reflex from it which takes the place of its normal blackness, giving rise to the old name of amaurotic cat's eye. It is in this stage that the diagnosis should be made and enucleation performed so as to forestall the development of the

tumor and the extension of the cancerous elements to the brain. In all cases of operation the optic nerve should be cut as far back towards the apex of the orbit as possible.

Sometimes a slow form of *suppurative choroiditis* gives rise to the same appearances, but here the eye is also hopelessly blind and shrinking of the globe is sure to follow, so that when a distinction between the two diseases cannot be made, excision is still the proper course.

Malignant ocular disease in the adult usually takes the form of *sarcoma of the choroid*. Rare at any time, it is more common between the ages of thirty and sixty years. As in glioma of the retina, the time at which treatment is undertaken is of the greatest moment. In the beginning, unfortunately, a diagnosis is often extremely difficult, even with the aid of the ophthalmoscope. The only subjective symptom is a defect in the field of vision due to the small localized tumor. Later, when increased tension and inflammatory symptoms appear and all sight is lost, the proper course to pursue is simplified by the general rule that a blind and persistently painful eye should be removed.

GLAUCOMA.

We may now pass to glaucoma. In regard to this disease I must content myself with a very brief epitome of the chief points to be remembered. It is usually confined to middle life and beyond. There are two grand divisions: Primary, or idiopathic, and Secondary, as a complication of some pre-existing eye disease. Either kind may be acute, sub-acute or chronic. The acute primary is the more typical form. The most reliable symptoms are intermitting attacks of dimness of sight and pain, the appearance of a colored halo around artificial lights, the contraction of the

field of vision, steamy-looking surface of the cornea, the pupil somewhat greenish in color and dilated, the cupping of the optic disc as seen by the ophthalmoscope, and, above all, the increased tension of the globe. This last is our chief reliance in some cases of doubtful diagnosis between this affection and iritis.

It should never be forgotten that when the tension of an eye is above normal that eye is in danger. There is an impression that its detection is difficult and requires a specially educated touch. On the contrary, except when the increase is very slight, it is extremely easy, and the physician should test the tension as a matter of routine in every eye case unless it is obviously not required. While the patient looks towards the floor alternate pressure is made downward by the tips of the fore-fingers placed far back on the upper lid over the sclerotic coat. Comparison with a normal eye is then all that is needed. Timidity is the only explanation of failure. The eye is not made of butter, and no injury can be done by any reasonable pressure of this kind. If there is tenderness the patient will let it be known and the degree of gentleness to be used is then plainly indicated, since no real pain must be inflicted.

The chronic primary, sometimes called non-inflammatory or simple glaucoma, is very insidious in its course and may drift on to blindness almost unnoticed. Here most of the above symptoms may be absent or ill-defined, even the increase of tension—the main reliance is in the ophthalmoscope.

As for the treatment, of all the forms, there are four cardinal points: (1) eserine, or pilocarpine if the eserine is not to be had, chiefly as a temporary expedient; (2) iridectomy, the best and usually the only means of relief; (3) prompt-

ness in the use of the first two; (4) beware of atropia—it is fatal.

Before leaving this disease let me emphasize the following advice: Especially when the patient is over forty, in any sudden dimness of sight—in any sudden pain in the eye—in any obscure case of gradually failing vision of any kind—before using atropia in supposed iritis—think of glaucoma.

IRITIS.

In speaking of so vast a subject as iritis I must limit myself still more strictly to a bare mention of the mistakes most likely to be made, avoiding the temptation to go into details, and necessarily omitting much that is important. The pitfall that most commonly leads to error is the liability to mistake the disease for an inflammation of the conjunctiva or the cornea and let it run on till damage has been done that can never be repaired. Escaping the devil on this side, we must beware of the deep sea on the other and avoid mistaking glaucoma for iritis. It is a safe rule to suspect iritis in every case when called upon to treat an inflamed eye. In other words, let exclusion of iritis be the first point in the diagnosis. The use of the essential local treatment for this affection—atropia—will, if the case prove to be conjunctivitis or other inflammation of the anterior parts of the eye, do no harm and in some cases will be of benefit, but, as before mentioned, in case of glaucoma it is far otherwise.

With iritis present, then, and glaucoma surely absent, the object is to dilate the pupil at once. If vigorous treatment is undertaken in the beginning a good eye is more than likely to be the result in the end, but in proportion to the amount of delay there will be adhesions between the iris and lens difficult or impossible to break up, per-

haps an immovable pupil and an eye always liable to fresh attacks and possibly entirely blind. Four grains of sulphate of atropia to the ounce of water is the strength to be employed. There is a common tendency to use too weak a solution, or one of proper strength too seldom. When the pupil does not respond well four or five drops of the four-grain solution, with an interval of five minutes between them, may be instilled. In rare instances it is not borne well, but if stopped at once for a time when the throat becomes dry or the face flushed or other signs of poisoning appear, this use of the drug is safe. When well borne we may in obstinate cases, before giving up the hope of breaking up the adhesions, employ a strength of even eight grains to the ounce—though not so frequently.

It may be well to mention one other point in the treatment: While in some diseases of the eye we may use, for the pain and the abatement of inflammation, either cold or hot applications, according to the feelings of the patient—in iritis it is not so—cold should never be employed.

WOUNDS OF THE EYE.

On the subject of wounds of the eye I have space only to call attention to the danger that so frequently arises of loss of the sound one from sympathetic inflammation. Experience has taught, and still teaches, that failure to sacrifice an injured eye by enucleation is often followed (it may be years afterward) by an attack of irido-cyclitis in the only useful eye, which, in the large majority of cases, ends in blindness. The consideration of the particular wounds which bring none of this danger, or those with which the wounded eye may be allowed to remain after a warning to the patient of the risk he runs, or those which abso-

lutely demand enucleation at once, must be omitted—except to say that there is one region which, when wounded, so often gives rise to inflammation in the sympathetic eye that it is known as the “dangerous zone.” This is the region of the ciliary body, occupying a space nearly a quarter of an inch wide just outside of the margin of the cornea. Wounds of this area, together with other kinds, particularly those in which the iris is left entangled in the cicatrix or in which a foreign body is left in the eye, are the cause of the very large majority of all cases of sympathetic disease. Inflammation of the ciliary body, when not preceded by wounds, may also be followed by it.

When this condition is present from whatever cause, and in addition the vision is lost, there is no doubt as to what should be done. The rule before given comes into play: A painful blind eye should be removed.

SYMPATHETIC DISEASES.

True *sympathetic inflammation* comes on rarely as early as two weeks, usually from four to eight weeks, and possibly many years, after the injury. The prodromal symptoms, called *sympathetic irritation*, may occur at any time. These symptoms are such as commonly cause a patient to speak of his eye as being “weak,” and are important as giving warning of the more serious affection—though this may appear unannounced.

When called to treat a sympathizing eye, if in the stage of irritation and the exciting eye is totally blind, our course is plain—excise at once. If in the stage of true inflammation and there is useful sight in the exciting eye, the rule is equally plain—do not excise. But under other conditions the proper decision will often require the most careful judgment of which the physician is capable.

THE CORNEA.

There are certain forms of corneal disease which should be mentioned as liable to cause the destruction of the eye. The ordinary ulcers usually heal under mild treatment, though commonly with more or less damage to the vision from the resulting scar, but we should be on our guard, especially in elderly patients in a poor condition of general health. If we have to deal with one of the various forms of *infective ulcer*, the worst of which is the destructive acute serpiginous or creeping ulcer, rupture of the cornea and loss of the eye is dangerously near. This is characterized by the dense opacity of the sharply cut advancing border as contrasted with the more transparent and less abrupt opposite edge. This, as well as the other infective ulcers, must be treated with prompt, vigorous and often heroic measures.

An important point with regard to all affections of the cornea is that *sugar of lead* should be carefully avoided, for the reason that whenever there is any destruction of the epithelium the insoluble white albuminate of lead is deposited in the corneal substance and is absorbed, if at all, with great slowness. It is a good rule never to prescribe it for the eye under any circumstances. This is illustrated by a case that was under my care just a few days ago. Some months since a physician prescribed sugar of lead for some eye affection in a child, probably simple conjunctivitis, and there was the usual good recovery. But later both the child's eyes again became affected with a similar trouble, as the parents thought. Having at hand the remedy which seemed to cure in the first case, they used it in the second for several weeks before consulting a physician. This time, however, the disease proved to be central corneal ulcer, and

the result was a dense white spot in front of each pupil.

But I must come to an end. I have not, of course, treated the subject ex-

haustively, but it is hoped that this rough charting of some of the dangerous rocks in the sea of eye practice may not be without some value.

HÆMATOMA OF THE SACRUM.

By H. O. HYATT, M.D., Kinston, N. C.

During the latter part of February Mr. L. Dillahunt, a prominent Jones county farmer, was kindly referred to me by Dr. Fred. Whitaker, with the following history: During July, 1892, patient began to be troubled with an uneasy sensation about the end of the sacral bone on the inside. It gave a good deal of annoyance, and for a long time was supposed to be internal piles. In January he was examined by Dr. Whitaker, who discovered a tumor arising from the sacral curve and pushing forward the rectum.

Examination.—The patient was a very healthy-looking man of 60 years. Digital examination per rectum disclosed a large, round, smooth tumor, with its lower border on a level with the last joint of the sacrum, and extending higher up than we could reach. The tumor almost filled the lower pelvis and was pressing upon the prostate, there being just a finger's width between them.

Inability to feel the tumor by deep pressure over the lower abdomen convinced us that it was entirely intrapelvic. The tumor was aspirated to make sure it contained no pus. Diagnosis was impossible; opinions were divided between lipoma, colloid cancer and fibroid.

Mr. Dillahunt, like all people of any prominence, was urged by some of his friends to go to Johns Hopkins Hospital;

others urged him to stay here. We frankly told him we had never read or heard of a similar case and did not know of any one who had—that the method and manner of operating would have to be elaborated by whoever did it; anatomical knowledge and common-sense were to be our only guide.

To cut from above was not to be thought of only as a last resort. The operation we determined upon was a transverse incision across the lower end of the sacrum, to separate the coccyx to which was attached the sphincter ani muscle. In this locality we could get an opening of three inches between the ischia. If this did not give us enough room, incisions could be extended on either side and against the ischia to the tuberosities. This would allow us to push the rectum forward under the pubic bones and give us the benefit of the entire pelvic outlet.

Dr. Charles Duffy very kindly came up to assist in the operation. With the assistance of Drs. Duffy, Whitaker, Tull and Woodley we operated May 1st. Incision transverse from one ischium to the other, separating coccyx and sacrum. This brought us down on the lower border of the tumor. The tumor was incised, to be followed by an enormous gush of bright arterial blood. This was unexpected. We passed our fingers into the body of the tumor and broke up all in reach. This checked the flow some-

what. At our request Dr. Duffy completed the breaking up. The debris was removed by small retractors, which answered the purpose of scoops. After the tumor was removed it was found to have extended the whole length of the sacrum. Its blood supply came from the middle sacral artery. The tumor had eroded the middle bone of the sacrum, making an opening through it the size of a finger-tip. The tumor cavity was packed with gauze. The loss of blood was very great.

The substance of the tumor was about as hard as a boiled egg and the color of gray brain matter. Patient rallied well from the operation.

May 2—Packing removed. It made a wad about the size of one's fist and represented the size of the tumor.

Feeling confident the tumor was malignaut, we swabbed out the cavity with a ten per cent. solution of chromic acid. This produced great pain. The wound healed rapidly and kindly. Patient had an attack of diarrhœa last of May, which prostrated him for a few days.

Examination July 6th by Drs. Whitaker and myself. Patient in first-rate condition; no sign of return.

This case is reported for two reasons: it is a rare trouble and the patient a prominent man. A review of the advanced surgery done by North Carolina doctors reveals the lamentable fact that their best work is done on paupers and negroes. Is it conservatism, kindly feeling or cowardice that prompts our brothers to send or encourage prominent people to go to the great cities?

THE RATIONALE OF HYDROTHERAPY.

BY SIMON BARUCH, M.D., Attending Physician to the Manhattan General Hospital, New York Juvenile Asylum, etc.

(Read before the North Carolina Medical Society, May 17, 1894.)

Recently a professional friend suggested that by devoting too much attention to hydrotherapy my usefulness would be impaired, owing to a "one-sided" view of therapeutics. This suggestion has "given me pause," but, upon due reflection, I regard it as originating in a mistaken view of the duty of the physician to his colleagues and to humanity at large. I take it that the physician's first duty is to cure disease; his second duty, but not less important, to garner up his dearly bought experience and offer its deductions to his fellow laborers for criticism, study, and, if worthy, for imitation.

Throughout all my professional life I

have been more deeply interested in therapeutics than in any other branch. Hence my contributions, whether medical, surgical or gynecological, have been to the treatment of disease.

Having spent the larger part of my professional life like many of yourselves, in village and country practice, may account for this predilection for a branch of the profession which is to-day too much neglected at home and abroad. A young Viennese doctor recently told me that he knew nothing of therapeutics because his teachers were engrossed in the *diagnosis* of living patients and autopsies of the dead ones far more than in saving the former from the fate

of the latter. To search out a rationale for therapeutics has ever been my aim, because only by this means may therapeutic methods be firmly established in the minds of the profession, and this is the reason that led me to the investigation of water as a remedial measure. Here was a field that opened a valuable mine for exploration! How inexhaustible and rich the mine is, there is daily reason to observe. If I am persistent in offering to the profession the results of my explorations in this direction, the explanation rests in the fact that I have discovered the same surprising inattention to, and constant unfamiliarity with, hydrotherapy in the large majority of the profession, which was a painful discovery in my *own case*.

As the value of this much neglected remedy dawned upon me in a somewhat extensive experience gathered in private and hospital practice, the question presented itself: Is it not a duty to agitate this subject in the medical societies until its merits and objections are thoroughly canvassed?

From the earliest medical times water has been applied in medicine. In his work *De Aqua et Locis*, Hippocrates laid down principles in hydrotherapy which are so sound and practical that it would be a blessing to suffering humanity were medical students indoctrinated in them to-day. The average medical man goes into practice with the *idea that warmth stimulates and cold depresses*. And yet Hippocrates himself taught the reverse, which is the truth. One of the first lessons we are taught in surgery is that when a limb is frost-bitten, we should avoid heat and apply cold. The reason is obvious even to the tyro in medicine—when this tyro becomes a full-fledged doctor and hears the cold bath suggested in typhoid fever he at once objects to it as a *depressing agent*. To overcome this

prejudice, which is as deeply-rooted as it is irrational, has been exceedingly difficult even for some of the greatest intellects, and most influential physicians, whose lives and works have illumined medical history.

Asclepiades, of Prusa, the bosom friend of Cicero, was a warm advocate of water. Indeed, he insisted upon being called a water doctor, and he was the man who founded the school in which were equipped for practice such illustrious men as Antonius Musa, the physician who saved the lives of the Emperor Augustus and of the poet Horace; Cornelius Celsus, the bosom friend of Ovid, and also of Galen. All these men remained true to, and exemplified, the teachings of their preceptor, applying water successfully in many acute and chronic diseases, and yet water fell from the high estate to which they had brought it. Paulus Ægeneta, the greatest physician of the seventh and eighth centuries, was the discoverer of the use of the cold douche in sunstroke. Cheyne Huxham and Currie, men well known in English medicine, and Hufeland, the renowned German medical philosopher, were enthusiastic advocates of hydrotherapy, as was also, in later times, that grand teacher, Niemeyer. These representative men are mentioned to demonstrate that hydrotherapy never was, and is not now, a *medical fad*, and that it must surely be founded on correct rationale and on practical results at the bedside, if it enlisted the advocacy of such men.

When I am charged with undue enthusiasm in this matter, I am proud to be able to point to these men and men like Ziemssen, Semmola, Charcot, Draper Peabody as confrères and collaborators.

One of the reasons why water has not become fully established as a remedy despite the advocacy of able and con-

scientious men, is that its rationale has not until recently been studied with care and precision.

To Professor Winternitz, of the Vienna University, we owe the first attempt to invest it with some scientific accuracy. As a follower and student of this clinician, I have endeavored to impress upon my American colleagues the importance of not accepting water as a remedy only upon empirical grounds. If it is to take a prominent place in therapeutics—a place from which the whims and fancies, the prejudices and fashions of coming generations shall not again displace it, the rationale of its action must be clearly established. In this essay it is impossible to furnish anything more than a brief outline. The more succinctly principles are formulated, however, the more readily they may be accepted or controverted. The rationale of the internal application of water will be omitted because this is very simple and generally appreciated.

That diuresis, for instance, is enhanced by free drinking of water, is a trite observation, as is the cleansing effect of stomach lavage and intestinal irrigation.

Although the external application of water in disease has been carefully studied by capable physiologists and clinicians, it has not obtained such universal recognition among practitioners as its positive effects deserve.

The action of water upon the human organism is derived from its physical and mechanical effects.

The physical qualities of water are utilized in hydrotherapy because it is an excellent vehicle for conveying the thermic and mechanical effects aimed at.

Water absorbs and gives up heat readily; it may be used in solid, liquid or gaseous form; it may be applied to any limited part of the body or to its entire surface. Hence its physical pro-

perty alone makes it a most flexible therapeutic agent.

Thermic agents, as is well known, affect living tissues in the most pronounced manner. Smooth muscular fibre contracts under cold and expands under heat, and its contractibility may be entirely destroyed by an excess of either.

By the conveyance of cold or heat by means of water we are therefore enabled to produce striking effects upon the vital processes which depend upon muscular activity. As cold and heat are irritants, their reflex effect conveyed through the nervous system also become valuable therapeutically. Applying these axiomatic principles, we find that circulation, respiration, tissue change and heat production may be positively influenced by the application of water as a medium of conveyance of cold and heat, that abnormal conditions of these functions may be remedied and their healthy equilibrium restored.

That the application of cold to the cutaneous surface produces pallor and cutis anserina is a well-known fact, as is also the rationale thereof. The circular fibres of the cutaneous vessels and the elastic tissue surrounding the cutaneous capillaries are contracted, and thus they are made to contain less blood. Stagnation occurs in the arterial capillaries, while the venous, being less easily contracted, remain filled; the part becomes cyanotic. If this stage be prolonged under extreme cold, necrosis of the tissues lying in immediate contact ensues. On the contrary, if the application of cold is of brief duration, *reaction takes place*, the part is aglow. In the first instance we have a paralysis of the inhibitory nerves, which allows the vase constrictors to exert full sway, while in the latter the inhibitory nerves are stimulated, and tonic contraction

and relaxation ensue. The deeper vessels in the muscular tissue are more slowly affected. The local hyperæmia produced by this reaction, both on the cutaneous surface and in the deeper parts, is therefore not a passive congestion, as has been too often assumed. It is not a congestion like that produced by the application of warmth, but it is the result of a vital process—the reaction which is the physiological sequel of the preceding depression. Admitting these trite physiological facts, you perceive that an immense field for therapeutic effect is at once opened.

The blood which is driven out of the cutaneous and muscular vessels must be taken into the general circulation, and thus produce hyperæmia in other more or less distant parts; arousing increased activity in organs whose circulation has been impaired by disease; removing the result of abnormal tissue change which the sluggish organ has been incapable of unburthening, stimulating it to more normal function.

That such effects are really produced, laboratory experiment, as well as observation at the bedside, has again and again demonstrated.

In a valuable essay before the recent International Medical Congress at Rome, Professor Winternitz, of Vienna, offered some practical observations upon the changes produced by thermic agencies upon the circulation of the blood and upon its composition in health. He ascertained positively that all applications of cold which involved the entire surface of the body or a considerable part thereof resulted in an increase of the number of leucocytes; the percentage of hæmoglobin and the specific gravity of the blood were also increased. This remarkable change in the blood was more less enduring, its extent varied according to the technique employed,

and sometimes it did not entirely disappear, even after a tolerably prolonged period of observation. Only in those cases in which no reaction ensued, as manifested by cutaneous hyperæmia, did this effect upon the blood fail. Indeed, in such cases the erythrocytes and often the leucocytes also were diminished. Sometimes the red corpuscles were diminished while the leucocytes were increased.

Locally, the application of cold, when followed by reaction, almost invariably increased the cellular elements, specific gravity and hæmoglobin of the blood, while a diminution of all these ensued in distant parts. After flowing foot-baths, for instance, blood taken from the toe showed an increase, while that taken from the finger or ear lobe showed a decrease. Warmth mostly produced a diminution of the cellular elements, hæmoglobin and specific gravity of the blood. A comparison of the composition of the latter in the normal condition of health, even, showed that blood-distribution is quite unequal: for instance, while blood taken from the point of a finger furnished 4,955,000 red blood-cells and 91 per cent. hæmoglobin, blood drawn from the abdominal skin showed 7,266,000 and 115 per cent. hæmoglobin. When, after this examination a cold compress was covered, was applied so as to envelop the whole abdomen, the blood drawn from the abdominal skin and the tip of a finger an hour later was found to present a still greater difference from that of the finger tip drawn at the same time. While the cell elements were decidedly diminished in the latter, that drawn from the former, underneath the compress, showed an enormous increase of erythrocytes and hæmoglobin, sometimes amounting to 2,000,000 of corpuscles and over 30 per cent. hæmoglobin. Up to the present

time all our observations upon the effect of cold compresses and poultices were conjectural and empirical. But these valuable observations demonstrate them upon a clear rationale. That these effects may be utilized to explain the rationale of cold applications in diseases was demonstrated last year by Thayer, of Johns Hopkins University, who observed that the blood drawn from the lobe of the ear of a typhoid fever patient after a Brand bath, contained three times the number of leucocytes which resulted from a counting previous to the bath. Since this enormous increase could not be the result of reproduction during the fifteen minute bath, the conclusion is inevitable, in view of Winternitz's observations just cited, that the increased activity of the circulation induced by the changing anæmia and hyperæmia of the cutaneous surface, resulting from the cold bath and friction, has drawn these cells from their hiding places on the outskirts of the blood stream and elsewhere and brought them into active service. Thus we have a brilliant explanation of one of the important effects of the cold bath in typhoid, the mildness it impresses upon its course, which may be charged to the phagocytic action of the leucocytes, when actively mingled with the blood current, where they must come into living contact with Eberth's bacilli or other pathogenic organisms.

How different this physiological method of stirring up a sluggish circulation is to that produced by medicinal agents, every practitioner may learn by comparing the impotence of the latter with the demonstrable results of the former.

Another result of the application of cold to the periphery is the increased blood-pressure produced. The contraction of the arterial capillaries induces a

more rapid flow of blood into the veins, while the deepened inspiration, which is also a well-known incident of the application of cold to the surface accelerates the circulation in the smaller vessels, causes the blood to flow more rapidly into the left auricle: the contraction of the ventricle becomes more vigorous. Thus blood-pressure is enhanced.

Cold improves the muscular tone of the vessels, increases tension, but warmth relaxes them, causing passive dilatation and loss of tone; although both produce a hyperæmia, one is the result of reaction and is *tonic*, while the other is the result of relaxation, and is *atonic*. This trite fact is sadly disregarded in practice. Its more general recognition will do much to neutralize and remove the fear of shock from cold applications in atonic conditions.

Before entering into the rationale of the clinical application of these effects the reflex action of cold and heat as irritants may be briefly referred to here. That the old idea of the direct derivative action of irritants like blisters is fallacious, has been clearly shown by Naumann and others. Naumann severed all the connections of a frog's head from its body, except the spinal cord, and then severed one leg from the body—after tying the vessels to prevent bleeding except by its sciatic nerve. By applying irritants to the severed leg the blood in the lungs and mesentery was made to flow more rapidly: when the irritant was withdrawn it flowed more slowly. From this experiment he deduced laws which are of so much importance in the rationale of hydrotherapy that I may be pardoned for summarizing them here: "The action of irritants is reflex and potent on the circulation; feeble irritants stimulate the latter and intense irritants depress it; effects continue after withdrawal; relaxation ensues

after the stimulation; cooling follows the warming effect of the increased circulation."

That the circulation of the blood in distant parts is reflexly influenced by thermic irritants, has been plainly demonstrated by the classical experiments of Max Schueller upon trephined rabbits.

Having the circulation in the pia mater directly under his eye, he found that any irritation, such as pressure upon the belly, was followed by filling of the veins.

The application of cold wet compresses upon the belly of the rabbit was followed invariably by dilatation of the blood-vessels in the pia mater and increased and slowed pulsation and deepening and retardation of the breathing.

The application of warm wet compresses to the belly of the rabbit was at once followed by a contraction of the vessels of the pia mater, a diminution of cerebral pulsations and a more rapid and shallow breathing.

Very hot compresses were followed by the same effect as cold compresses. And right here I may call attention to a point not sufficiently appreciated, that extremes of heat produce temporarily the same effect as extreme cold.

By dipping the rabbit into cold or warm water, i. e., giving it a bath, the same effects were produced as by compresses of the pure temperature. Many other valuable points of practical interest were ascertained by these experiments, whose results are sustained by others—all tending to demonstrate that the various hydriatic procedures produce positive effects which medicinal agents are incapable of accomplishing.

It is not difficult to demonstrate that the thermic action of water upon the human organism is capable of influencing its every part and function in the most pronounced manner.

Beginning with the skin, we know that

this is an organ of protection by reason of its external layer; of excretion and heat regulation by reason of its glandular and sacular supply; of sensation by reason of its harboring terminal nerve fibres. Hence the skin is the great outpost of the human body. As a stimulant to all these functions water has long earned a well deserved position. That by warmth or cold conveyed through it we may increase or diminish any or all of these functions of the skin, need not be enlarged upon before this audience. By reason of its action upon the glands of the skin we may enhance excretion of products of tissue changes, as in uræmia, by warm baths and hot packs; by reason of this action we may increase or diminish the heat of the body, which is regulated chiefly by giving off moisture, and which may be powerfully influenced by direct cooling of the blood as well as by reflex effects from the nerve centres. That soothing or stimulating manifestations may be produced by warm or cold baths, is also so common an observation that it requires only an enumeration in this category.

Next to these powerful effects upon the skin proper, let us consider the effect of hydriatic procedures upon the heart and circulation. The first impression of cold upon the sensory cutaneous nerves is rapidly conveyed to the brain. Rapid contraction of the cutaneous vessels ensues, causing an increased vascular tension, which is followed by slowing of the pulse. This continues so long as the individual rests, but the pulse rate increases with continuance of high tension, if exercise be taken after the hydriatic procedure. The effect of cold applications upon the *respiration* is to deepen and slow it; the normal frequency is, however, soon resumed; but the deepening effect continues. Hence

it is wise to send anæmic and other patients requiring increased supply of oxygen at once into the open air after cold hydriatic applications.

The influence of cold applications upon constructive and destructive metabolism is demonstrated by the increase of urinary specific gravity and continues for several hours, as shown by Inergensen and others; also by the increased excretion of carbon dioxide discovered by Liebermeister and Voit after cold baths. Warmth produces the opposite effect.

Having now briefly pointed out the powerful physical and thermic effects of water upon the human body, it remains to refer to the *mechanical effect*. Friction alone has been shown by Pospischl to produce a great increase of heat loss; and Winternitz has demonstrated that when active mechanical irritation is combined with cold baths, the temperature of the patient is more readily reduced. Indeed, Winternitz has announced it as a law that the amount of compensatory heat increase which is incidental to all cold baths, is not influenced by the absolute amount of heat abstraction, but by the degree of actual cooling of the peripheral terminal nerve fibres, which govern the production of heat by reflex action. Mechanical irritation, as friction during a cold bath, prevents tremor and that intense tonic contraction of the muscles which always results in the production of heat. These facts are beautifully utilized in the Brand bath, whose efficiency depends not any more upon its temperature (65.4°) than upon the active, but gentle, surface friction.

Aside from this reflex effect produced by the mechanical aids utilized in hydriatic procedures, the actual pressure with which water may be applied enables us to vary its effects. In a full tub bath respiration is more difficult, because of

the pressure of the water upon the thorax.

The effect of a douche delivered under pressure of one or two atmospheres is stimulating to the cutaneous vaso-motor nerves, as is evidenced by the rapid dilatation of the cutaneous vessels at the points of impingement. The exact experiments of Maggiora and Vinaj (*Blätter f. Klin. Hydrotherapie*, January, 1892) demonstrate that the mechanical effect of water applied under pressure of two atmospheres, increases three-fold the working capacity of the muscles, as mathematically ascertained by means of the ergograph of Mosso, which correctly and automatically registers muscular resistance.

The mechanical massage produced by a good douche sets diseased structures into a vibration which cannot be approached by simple manual massage. This mechanical effect is constantly utilized most effectively in feeble patients, to whose condition it may be graded and adapted. In locomotor ataxia patients may be greatly injured by cold baths and douches. Here we utilize advantageously the tonic effect of hot douches by combining more or less the mechanical effects of pressure, gradually increased and adapted to the case.

This brief outline of the rationale of the action of water upon the human organism may be fitly concluded by explaining the manner in which it may be applied therapeutically.

We have several, indeed numerous, methods of applying water externally, all of which aim to deduce some curative or palliative result from the application of those principles of hydrotherapy which have been briefly formulated under the term rationale.

But we are capable of applying water in the treatment of disease with greater accuracy and more extensive latitude in

resultant effect than is possible from the application of medicinal agents. I do not say this in deprecation of the latter, whose value no one is more ready to acknowledge than myself.

To substantiate this proposition, allow me briefly to point out that we have three elements of increasing and diminishing the therapeutic effect of water upon the organisms, viz: temperature, duration and pressure.

That the temperature is capable of modifying the effect of water is well known. A very high or very low temperature produces destruction of tissue, while moderately hot water produces a rubefacient effect. The difference in the effect of a bath or other hydriatic procedure at 100° and at 45° F., needs but to be mentioned to be appreciated, and it cannot be denied that every five degrees, more or less, between these two extremes must produce a different effect in the same individual, bath or other procedure. That the duration is capable of modifying the effect of the latter is also known. It would be easily appreciated by the experiment of dipping one hand into water at 40.4° for two seconds and drying it with friction, and then putting the other hand into the pure water for ten minutes and drying with friction. In the first case we would obtain the stimulating effect with a fine glow and well filled ruddy cutaneous vessels, while in the second instance we would have a shrivelled skin, of cyanotic hue, cold and clammy, which many minutes, if not hours, of friction would be required to react from.

It may not be so evident that every second of time of exposure to a hydriatic procedure of the same temperature may alter its effect; but this is really a fact, of which any one can be convinced by personal observation.

Pressure.—Although the modifying in-

fluence of temperature and duration is usually recognized, the effect of *pressure* is not so generally appreciated. A pressure of four atmospheres driving a stream of water of any temperature through a very minute opening, produces *destruction of the skin upon which it impinges*.

During one of the meetings of the staff of the Montefiore Home a good deal of amusement was created by drilling small apertures into the thumbs of some of my sceptical colleagues by means of the douche filiforme of Laureat. Driving water at the same pressure through a larger aperture will produce a rubefacient effect, while a stream of still less pressure will produce a temporary blush only. Then we may produce the destructive effect of a caustic or blister, or the rubefacient effect of mustard by simply varying the pressure with water at the same temperature.

When a stream of water of 50° is driven upon the body under the pressure of two atmospheres, the depressing, chilling effect of the low temperature is counteracted by the massage and friction due to the forcible impact. The skin emerges from such an application in a glow. If the same individual be bathed by the pouring the same water over his body from a sponge, the effect would be depressing, (chilling), and so much greater reaction capacity would be required on the part of the individual, that an attendant must be necessary to aid it by friction.

It is plain, therefore, that we have a safe latitude of 70° (40°-110°) in *temperature*—a safe latitude from one second to many minutes in *duration*; a safe latitude up to 30 pounds in *pressure*; by means of which we may modify the effects of hydriatic procedures.

Besides these *mathematically ascertainable* elements of a hydriatic prescription,

we have various modifications in hydriatic technique, as baths, packs, ablutions, douches, etc., by means of which we may again render the effect very flexible.

One who has had occasion to observe this flexibility of hydriatic measures cannot fail to be convinced that no similar effect is deducible from medicinal agents.

It is difficult, if not impossible (selecting a powerful remedy for illustration) to ascertain by any reliable test if there be a difference in the effect of strychnia upon the pulse, respiration, digestion or tissue change produced by any *non-toxic dose* (from say 1-60 grain to 1-50). I am not aware of such facts having been ascertained. All the so-called physiological effects described by Horatio Wood and others are predicated upon poisonous doses, not upon medicinal doses. The same observation may be made upon many other valuable agents. Unless toxic doses, or doses closely approaching these be used, there is no definite clinical or rational difference ascertainable.

Hydriatic procedures, on the contrary, are so flexible that they may be administered by such a variety of methods that their effect may be definitely closed, as it were, and correctly ascertained.

In conclusion, I would offer some illustrations of the rationale of a hydriatic procedure :

Place a patient suffering from any severe infectious disease, with high temperature, into a bath of 70° for fifteen minutes, practice active friction and observe the result. Elevated temperature, rapid and perhaps feeble pulse, shallow respiration, dulled intellect, lost appetite, concentrated and scant urinary and other secretions indicate that the nervous system is overwhelmed by the products of infection. So soon as he

enters the water he gasps. The shock and subsequent stimulus to the cutaneous surfaces are conveyed to the nerve centres and thence reflected to the heart, lungs and the other organs. Observation at the bedside at once renders these effects patent.

This first effect is a refreshment and enlivenment of the cerebrum. The eyes are opened; the face loses its apathetic stare; consciousness returns after one or more baths; the respiration is deepened; expectoration is facilitated; the widening of the peripheral vessels and the stimulation of their coats relieve the heart; blood-pressure is increased, and the laboring organ becomes as quiet as does a sea-tossed ship in the hands of a skilled mariner. The secreting glands are aroused to activity. Moreover, the temperature is reduced, not so violently as by medicinal agents, but more definitely, in better accord with normal tendencies. In brief, all the manifestations of the disease are favorably influenced because the normal standard is slowly but steadily and lastingly approximated under the influence of repeated judicious bathing. Even the most exacting demands of the most recent ideas are met by this treatment.

Metchnikoff has shown by his interesting studies that inflammation is the phagocytic reaction of the organism to an irritant. Cells are phagocytes, hungry to devour any toxine or microbe that may find entrance into the blood.

We may successfully aid the system in this "reaction against the toxines" by endowing its main vitalizing agent, the nerve centres, with vigor, by furthering elimination from the skin and kidneys, by removing hyperæmia of the organs and facilitating the passage of phagocytes into the tissues, but more especially by rendering the blood more alkaline, and thus more favorable to the

phagocytes. A lack of recognition of these principles involved in the Brand bath in typhoid fever leads to disappointment and disaster. If, for instance, the temperature and duration are not properly adapted to the case, the shock and subsequent stimulus are modified. If the frictions of the surface are omitted, the widening of the peripheral vessels is prevented and cyanosis will result instead of the ruddy hue of the skin, with consequent depressing effect upon the heart. The latter, instead of being aided by the tonic widening and responsive elasticity of the cutaneous vessels, will remain contracted, and thus embarrass the heart; collapse ensues with feeble pulse, Cheyne-Stokes-like breathing—effects so rare after the application of this bath, according to its correct rationale, that I have never seen them, but effects which we often hear in discussion attributed to the cold bath, instead of its improper application.

That there is need of a good deal of missionary work on this subject I have frequent opportunity of observing. As an example allow me to cite a case in point. Two months ago I was asked to see in consultation with an intelligent and experienced colleague a child of two years, in the latter part of the third week of scarlatina. Desquamation was proceeding; the child was suffering from enormous cervical glands, jactitation with partial stupor, very high temperature, feeble pulse, in short, a clear case of sepsis. The attendant recited the difficulty of controlling the temperature by aconite, phenacetin, quinine, and concluded with the statement that even baths, against which he claimed to be prejudiced, had proved ineffectual because the child collapsed in them. On inquiry I learned that the baths were applied fifteen minutes, beginning with a temperature of 110° F. and reducing

gradually to 80° F. If a correct rationale had been followed, such a bath would not have been used. The object in view was to lull the patient to rest, to reduce the temperature and improve the heart's action. That a temperature of 100° would produce the opposite effect, it would seem patent enough, even to one who has not studied the rationale of hydrotherapy. But to disturb a child in this condition by the splashing and noise necessary to reduce the bath to 80°, to allow water of such a low temperature to come into contact with a tender, partially denuded skin, even by slow degrees, is entirely opposed, as you will perceive, to the rationale I have offered. A bath of 95° for eight minutes fulfilled the indications effectively.

A few days ago a phthisical patient in my wards at the Manhattan Hospital, who was receiving considerable benefit from a dry pack, followed by ablutions at 80°, reduced daily until 60° was reached, was asked how he liked the cold ablutions. His reply was that he liked this treatment and that he had received it in Bellevue Hospital, where they had *even put him in tubs of ice-water*.

Another illustration and I have done. A few days ago an eminent teacher told his class that the best treatment for neurasthenia is cold water. He said it was best administered at an institution. In the absence of the latter he advised giving a bath of 105° F., then pouring several basins of water at 70° F. over him. If the object of this treatment is to arouse the sluggish nerve centres, it would be far more proper to omit the warm bath, which relaxes and diminishes the reactive capacity of a strong individual even. Such neurasthenics should only have the feet covered with warm water to prevent chilling, and receive ablutions with frictions of water at 80° daily, reduced two or more degrees until

their reactive capacity is educated, as it were. Then, and not until then, may the affusions be applied with great benefit. Of course patients subjected to improper hydiatic procedures fortunately do not die from them—they do not even suffer materially in most cases, but the remedial effect is neutralized, if not entirely thwarted, by a disregard of the true rationale.

This is my chief reason for bringing this subject to your attention. I ask you to give the same clinical study to the remedial uses of water which you have devoted to the study of medicinal agents; I ask you not to condemn this valuable agent until you have tried it fairly according to the principles which are briefly pointed out in this paper, and which will amply repay more elaborate investigation. Having mastered these principles, you will find that the clinical application of water will afford you not only an auxiliary to the ordinary treatment of diseases, especially those which have become chronic and intractable, but in many desperate cases it will prove a last, but effective, resort.

In *chlorosis*, that has resisted iron, in the *various obstinate digestive troubles*, in *phthisis*, *chronic rheumatism* and *neuralgia*, in *neurasthenia* and other functional neuroses, in the faulty nutrition of most organic diseases, too, I have been able to confirm the opinions of Draper, Semniola, Erb, Chareat, Leyden and other clinicians, that we have in hydrotherapy an agent of great power, which is not sufficiently recognized by the profession. I have come to regard no case as hopeless until a judicious and methodical application of water has proven ineffectual.

DISCUSSION.

Dr. O'Hagan said that after the very philosophic and scientific exposition of the therapeutic uses of water, he was

surprised that there was no response from any members of the Society. He said that it had been his good fortune to come across a man who had been under the treatment of this Prussian peasant, who first popularized the use of water as a curative agent. It was in the commencement of his professional career. The man had been a fast liver and had gotten bad health. He had gone to various physicians in Paris and in London, and derived no benefit from their treatment. He then went to the mountain home of this Prussian peasant, and there he was restored to perfect health. A number of other invalids from England and other parts of continental Europe were induced to go, and they received benefit from the treatment. He had gotten books written by scientific men on the subject. He told the case of a man who had been under treatment for dyspepsia ten years. In eight weeks he was restored to health.

Dr. O'Hagan spoke of the utter futility of the recognized drug treatment laid down for fevers. Long before the water treatment for fevers was promulgated by Brand in Germany he had been in the habit of treating them with the cold bath, neither scientifically nor systematically, for he did not understand it. The water treatment is one of the most valuable that we have. He believed that more good could be accomplished by the use of water for fevers and for diseases of the digestive organs than with the whole *materia medica*. He told of a case to which he was called. The man was excited and his pulse feeble. He was taken and wrapped up and water poured over him. To the astonishment of the doctor, in a short while the man became rational. For the first time he slept. The treatment of diseases depends more upon water than upon all the *materia medica*. The

uses of water are innumerable and its applications are invaluable. It is applicable to almost every known disease. He hoped that the able papers by the two gentlemen would stimulate all the members of the Society to an active study of hydrotherapy. He recommended it as one of the most powerful agents known for the curing of disease. He said that his scepticism increased when he saw the rack and ruin produced by the reckless use of powerful drugs.

Dr. Flippin stated that this method of using cold water seemed to have been given up almost entirely to the quacks. But it is becoming more widely used than ever before in the history of medicine. He said that typhoid fever treated by Brand's method, that is, by cold water, at a temperature of about 65°, with friction of the body with the flat surface of the hand, gives a mortality of less than 4 p. c. Treated by the drug plan, it gives a mortality of 40 p. c. The cold water plan will lower mortality and the drug will raise it. It is often difficult to carry out Brand's method for the treatment of typhoid, for the tub cannot always be obtained. Dr. Flippin's plan was to carry a rubber oilcloth about with him. The oilcloth could be easily placed upon a table and the patient laid upon it and water poured over the patient. Start with the water at 80° and come down to 65°. The patient is to be kept in the bath for about fifteen or twenty minutes, until his temperature is brought down to 99° or 100°. When properly used, cold water is no depressor, but a stimulant.

The attention of the Society was called to the most fatal disease of childhood—cholera infantum. It is not found so much in rural districts as in cities. If it should be attempted to reduce the temperature of the child by drugs, the child would probably die from the de-

pressing effect of the drug. Dr. Flippin's plan is to wrap the little sufferer up in a wet pack of about 75° or 80°. He repeated this about every hour, until the temperature was about normal. He also gave a hypodermic injection of morphine with this. In connection with this he ordered that the child should have nothing to eat for thirty-six hours. It is allowed all the cold water it wants with an occasional sip of hot water. When the child is fed the diet must be very light. In that connection he said he thought that it would be better not to feed typhoid fever patients for the first few days of their sickness. Give them plenty of cold water and no food from the first three to ten days of sickness. He believed that then there would be no long cases of fever, and that there would be no necessity for the cold baths.

Dr. McMullen said that in typhoid fever there is a manufacturing of poison, to which all the distressing symptoms observed are due. He said that treatment is for the purpose of lessening the manufacture of the poison, and thereby rid the system of it as rapidly as possible. There is no force greater in such matters than that of osmosis. When this hyperæmia of the skin is produced by the secondary relaxation of the circulation, and we bring in contact with that fluid of circulation a light fluid, then osmosis takes place. This double current at once takes place. We have placed in the circulation of the patient pure water, and from the circulation into the water the toxine of which we are so anxious to rid the system.

Dr. Sykes said that he had no further experience in the cold water treatment than the application of cold cloths to the head. He had used the medical treatment and for the last four years his death-rate had been less than 4 p. c. He said that he did not doubt that

others present who had used the medical treatment had had even a lower death-rate.

Dr. Moore had heard with much gratification the addresses of the respective gentlemen upon this subject, and felt highly instructed. He thought that something ought to be said for the comfort of that part of the profession living in the country. Unfortunately, in America the cities are becoming predominant, and especially so in the treatment of disease. They have all the appliances that are necessary for carrying out in the most minute manner the principles that they regard as essential. And they suggest to gentlemen who have country patients to carry out the same. Unfortunately, it is utterly impossible to carry out all the elements they regard as essential to the successful treatment of the patient. These medical men are made unhappy and dissatisfied because they feel incapable of doing justice to their patients. While these principles of therapeutics are recognized as fundamental, and, while all that is claimed for them is virtually true, the treatment of typhoid fever by the application of hot and cold water is only within the province of the few. This is no new principle. It was practiced during the time of Roman history as well as in the Middle Ages. Those who have read Lawson's History of North Carolina, published in 1700, will remember the manner of treatment of fever by the Indians. It is to be very much desired that the essentials of the treatment of fever in the manner described can be reduced. In the treatment of fever use as little medicine as possible. He closed with an appeal to the gentlemen not to make themselves miserable because they could not carry out in minute detail the cold water treatment of typhoid fever.

By request of Dr. Gibbon, Dr. Baruch

closed the discussion with a few remarks.

He said that he had found in this discussion an acquaintance with the subject which he had never found in any of the medical societies of the State of New York. One gentleman had stated, and stated correctly, that there is no better tonic in the world than cold water properly applied. Another gentleman said that he put the patient into a tub and gave him cold affusions. Now, when any one has a case of typhoid fever he should put the patient into a tub and give him several buckets of water, beginning at 70°. After waiting fifteen or twenty minutes he should repeat it with the water at 60° and then again at 50°. He spoke of the remarks of Dr. Moore being very appropriate in many respects, but still they did not meet the point. If the doctor knows exactly how to use the cold water it is not necessary to have the Braud bath and the tub. That is the proper treatment, but when the best cannot be had, take the next best. He said that he took the statistics of no private practice, not even his own, in this case—for this reason, what are a 100 cases of typhoid fever? He then referred to the valuable statistics which have been tabulated from the records of the Hospital at Munich for forty years. Everything connected with them was put down. They are the statistics of 8,400 cases that occurred during forty years. It was taken from men of the same stamp, men who were healthy when they came, men who took the same kind of food, who got up at the same time of day, and men who had had the same kind of drilling. That is what he calls statistics of a disease. You cannot get statistics from any 200 or 300 cases in private practice among all sorts and conditions of people.

POISONING FROM SPIDER BITE.

Acmed J (os) 34:167-168, #4, Oct. 1894.

BY RICHARD H. LEWIS, M.D., Kinston, N. C.

Having been a practitioner of medicine for fourteen years and a member of the North Carolina Medical Association before the war, may, perhaps, be an apology for writing to the JOURNAL; though for the last twenty-five years I have been engaged in another profession. But my interest in medical science has never abated, and I note, with pride, the advances of (shall I say *our*) the profession in our State.

My object in writing now is to call the attention of medical men to a case in which, instead of being the physician, I was the patient.

It is, perhaps, not universally known that we have in North Carolina a species of spider whose bite is very nearly akin in its effects to those commonly attributed to the tarantula of the tropics. I am not well versed in natural history, and cannot, therefore, describe accurately the insect to which I have alluded. And besides, when we consider the fact that this spider only appears at night, it will be seen that there is not much chance to capture him. And also when we remember that the one who suffers from the bite does not spend much time in searching for the enemy, but flees incontinently, we see an additional reason why the insect has not been caught and examined. Dr. H. O. Hyatt, of Kinston, N. C., says that he is a small, black spider, marked in the breast with a reddish-brown trefoil.

On Sunday night, June 10th, this year, I was bitten upon the glans penis by one of these animals, about 8½ o'clock. The first sensation was precisely that produced by the nettle. Very soon, in fifteen minutes, pains commenced in the scrotum. In half an hour there was

tremendous pain across the bowels. It seemed to go as if in a band as wide as my hand, contracting rigidly the muscles as it went upward. In an hour the band of pain was drawn tightly around my chest. The agony had been severe before, but now it was terrible. It seemed as if the ribs and intercostal muscles had become consolidated as an iron breast-plate and lightning-like pains darted around the band perpetually. My pulse went down to about 50. My breath came in short gasps—every inspiration seemed to be the last one.

I have been told that I used strange language—in fact, I was delirious. And when the pain reached the brain I was in a state of excited horror. I can explain it in no other words.

Dr. H. came to me about 10½ o'clock. He used hypodermic injections of morphine four times that night. At 3½ o'clock Monday morning I became somewhat quiet, and the pain spread down each lower limb and continued to the tips of each toe.

All day Monday I seemed to be some one else, but not an instant free from distressing pain. But the dread which had overshadowed me the night before was gone. Dr. H. came again Monday and administered another hypodermic injection of morphine. I was exceedingly restless all that day and night. I felt compelled to change my position every two minutes.

On Tuesday the pain left the upper part of the body and settled in the lower limbs and feet. Its character had then changed. It was now a sharp, pricking sensation, coming every minute in sharp, lancinating stabs, as it were. I must not forget to state right here that I tried

the whiskey treatment Sunday night. It was a miserable failure. All the effect produced was nausea and vomiting. The constriction of the chest passed off by Tuesday night. My powers of consecutive thought were gone; I could think only in very short sentences, reminding one of books written in one syllable words for little children. That night I slept tolerably well.

On Wednesday the pain had broken up into spots instead of in bands and lines as before. Piercing, acute, stinging pains, in all parts of the body except the head, were now constant. They followed no particular part of the body, and without regularity of time. From the second joint of the fore-finger of the left hand to the ball of the right big toe the pain transferred itself with greater than lightning speed. During that day all pain ceased above the knees and was confined to the feet and legs. Every moment there was pain in some part of the right or left foot. They seemed to go downward every time, as if some one had thrust a spear, sharp as a bee's sting, into the muscle. Morphine controlled this pain somewhat, but I was becoming afraid of using so much of the drug, having a great dread of becoming an opium-eater. I slept about five hours that night.

On Thursday I found that the enemy had changed its tactics. No surcease

from pain marked this day, but a change in the character of it. It assumed the appearance of nervous rheumatism—to such an extent as to “deceive the very elect.” Its favorite seat was the loins—lumbago, you know. But I was not deceived. I was acquainted with nervous rheumatism from personal experience. Lumbago has no sharp, stabbing pains in other parts of the body. During the day the spearmen got in their work on my feet again. I determined to try bodily exercise; so I went into the garden with a hoe. Becoming interested in the work and warmed thoroughly, even to profuse perspiration, I found a cessation from pain; but being very much wearied and very weak, I was compelled to desist. Then the pains came again, stabbing, biting, piercing. In the afternoon a close imitation of lumbago came on again. Until Wednesday I had no appetite whatever and ate nothing. Afterwards I took my meals regularly, but a *very* small quantity sufficed.

For the next four days the pains ceased day by day, growing less, lingering longest in the toes. By Monday, the 18th, I was free from pain, except occasional stabs in the toes, but very weak, especially in the legs. A few days at Morehead City, with sea-bathing, restored me completely to my usual health.

Selected Papers.

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THE OPERATIVE TREATMENT OF INTERNAL HEMORRHOIDS AS PRATICED BY AMERICAN SURGEONS.

BY CLAUDE A. DUNDORE, M.D., Philadelphia, Pa.

The surgical measures devised for the treatment of internal hemorrhoids have been numerous and varied, but it is the

purpose of the author to merely consider those methods which are in use at the present day in this country. They may

be classed for convenience as follows: (1) Dilatation; (2) injection of carbolic acid; (3) torsion; (4) application of acids; (5) excision; (6) clamp and cautery; (7) ligature.

1. *Dilatation*.—The patient being first anesthetized, the thumbs of the operator should be well greased, inserted into the rectum, and the sphincter gently and gradually stretched in all directions, until the muscle is entirely relaxed. By using a speculum such as Pratt's, for this purpose, as is sometimes done, it is true it is possible to exert more force with much less effort; but the operator not being able to use his sense of feeling to judge when all contraction is overcome, may use an extreme degree of force, thus severing more or less muscular fibres, which should always be avoided.

Vernuil advocated this method for small hemorrhoids and ones of recent origin, and claimed it gave great relief, which was in many cases permanent. Allingham says: "It will give wonderful relief in selected cases," but in this country it has met with but slight favor among the regular profession.

It should be used, however, as a preliminary step in all other operations for hemorrhoids, in order to paralyze the muscle, and thus give rest to the parts during the reparatory process; it is for this reason I have described it here.

2. *Injection of Carbolic Acid*.—This consists in injecting about 5 drops of a solution of carbolic acid (usually in glycerine, and varying in strength from 10 to 50 p. c.) into each pile, which immediately swells, becomes exceedingly dark in color, and should be returned to the rectum. The weaker solution sets up an inflammation, which as it ceases is followed by more or less shrinking of the pile; the stronger solu-

tion causing rapid and often extreme sloughing of the entire mass, leaving an ulcer which varies greatly in size. Some years ago this method had many advocates, but as time has elapsed they have dwindled in number, and even those who still uphold its efficiency are more careful in their statements, and acknowledge some of its dangers. It is uncertain and fraught with danger, for it is impossible to foretell or limit the amount of inflammatory action which will be set up; and recorded against it we have excessive sloughing followed by hemorrhage, extensive ulceration ending in stricture of the rectum, abscess, fistula, embolism and pyemia.

3. *Torsion*.—This method, as generally described, is used very seldom, if at all, in the United States, and under this heading I merely give the method advocated by Thomas H. Manley, of New York:

"After having cleansed, shaved and scrubbed the integuments over the ischio-rectal fossa we are prepared for the first step in the operation, which is effective *cocainization* hypodermatically applied. Local analgesia, when practicable, is much preferable to pulmonary anesthetics. Our patient is more manageable, and there is no spurting of the feces over the operative field during manipulation.

"Cocainization complete, the next and most vital step is complete and thorough *anal dilatation*.

"Without this being efficiently carried out all else is a failure. But to be painless and safe it must be gradual and steady, or we will rupture the muscle and leave our patient incontinent.

"In chronic old cases wherein, owing to malnutrition and interstitial changes in the sphincter, it has parted with its elasticity, laceration is very easy if we do not exercise caution. Thorough anal

dilatation accomplishes two purposes of great importance.

"First, it opens widely the anal portal, and so paralyzes the levator ani that the lower fourth of the rectum—the part always implicated in hemorrhoids—prolapses through the open vent, when it can be most minutely inspected and radically treated. This, however, is of minor importance compared with the profound effects which dilatation produces on the rectal disease. It is not material whether the hemorrhoids belong to the inflamed, intensely itchy or irritable type, this stretching exercises a most salutary influence on them.

"The third step in simple hemorrhoids will be the separate treatment of each tumor by forcible pressure massage.

"Before this is commenced the entire cluster should be wiped clean and dry and be then freely mopped with the cocaine solution.

"Now each hemorrhoid is separately seized, close to its base, firmly between the tip of the thumb, index and middle fingers; first, put on a moderate but full stretch, then twisted, and finally so completely crushed that it is reduced to a pulp, and none of the investing tunics remain except the mucous membrane and its under stratum of fibrous tissue. When this has been completed the entire mass is again pressed up inside the sphincter, a suppository of opium introduced, a pad and bandage applied, when the patient is returned to bed. An active but painless inflammation follows, and, as a rule, within two or three weeks, resorption and atrophy have so reduced the vascular masses that nothing now remains but their shrunken, diminutive stems."

4. *Application of Acids.*—This is of utility only in piles of the capillary variety, characterized by bright red patches of granulations, which bleed on the

slightest provocation. Chromic acid, carbolic acid and acid nitrate of mercury are used, but nitric acid gives the most satisfactory results.

The sphincter having been stretched and the pile exposed to view, it is painted with a brush dipped in nitric acid, care being exercised that none of the acid comes in contact with the surrounding normal tissues. The pile and adjacent mucous membrane should be greased with vaseline and returned to the bowel. Superficial sloughing takes place and the contraction which follows obliterates the granulating surface in about ten days.

5. *Excision.*—I give here the method of Mr. Whitehead, of Manchester, Eng., simple excision being little used.

Mr. Whitehead upholds the theory that in all cases of hemorrhoids we have to deal with a pathological condition of the entire venous plexus encircling the lower portion of the rectum, of which the hemorrhoids are but component parts, and assumes that, such being the case, the only radical procedure is that which obliterates this entire pile-bearing zone, as follows: After thoroughly stretching the sphincter, an incision is made at the junction of the skin and mucous membrane around the circumference of the anus, and the mucous membrane dissected from the tissues beneath so it can be drawn outside. The lower portion of the projecting membrane, with the attached hemorrhoids, is then cut off transversely, and the margins of the mucous membrane and skin are brought in apposition by means of sutures.

6. *Clamp and Caутery.*—This method, first advocated and used so largely by Mr. Henry Smith, is as follows: The clamp is applied to the base of the hemorrhoid longitudinally to the bowel, and the blades closed by means of the screw. The hemorrhoid is then cut off

within about a quarter of an inch of the clamp and the cut surface wiped perfectly dry and repeatedly touched with the hot iron until the surface is well cauterized. The clamp is then slightly loosened and all bleeding points are again touched with the iron until all oozing is entirely checked, after which the stump is returned to the bowel.

7. *Ligature*.—Mr. Allingham's method of ligature with incision is described briefly by himself as follows: "The pile is drawn down by a vulsellum, and is separated with scissors from the muscular and sub-mucous tissues upon which it rests. The incision is made at the junction of the skin with the mucous membrane and is carried up the bowel, so that the pile is left connected by vessels and mucous membrane only. A strong silk ligature is then tied as tightly as possible at the neck of the pile, and great care is required in tying all the knots that are made, as many as three being desirable. The ligatured pile is then returned to the bowel. The pile is not to be transfixed with the ligature—that is quite unnecessary."

In this country it is customary with many surgeons to transfix the base of the hemorrhoid with a double ligature if it is very large, and also to cut off the hemorrhoid about a quarter of an inch from the ligature before returning the stump to the bowel.

The ligature, clamp and cautery, injection of carbolic acid and Whitehead's operation each have their advocates, and many and heated have been the discussions which have arisen as to the relative merits of these various methods; the adherents of each striving to prove that *their* favorite procedure was the least painful, safest, easiest of execution, and should be used in all cases. While it is undoubtedly true that the surgeons who limit themselves to one favorite opera-

tion become adepts in its performance, are more careful and better able to cope with the dangers incurred, and show excellent results by their statistics, still it is an open question whether it is not preferable as a matter of justice to the patient to apply the method of procedure which good judgment should suggest as the most suitable for each particular case.

The writer's object has been to collect the opinions of American surgeons in regard to the most satisfactory methods of treating internal hemorrhoids, as proved by results in their practice, quoting the following from miscellaneous literature on the subject, and from personal letters received in answer to inquiries addressed to many of the prominent surgeons in the United States.

While it would be utterly impossible to obtain the opinion of every surgeon, still it is probable that the following fully represent the general views on this subject, and will go far toward showing which surgical methods prove most valuable in the treatment of these cases.

Until very recent years this class of cases was almost ignored by the regular profession, especially so by the general practitioner, the very person who meets with most of these cases, and who should be able and willing to treat them rationally, as he would any other disease, instead of allowing them to fall into the hands of the charlatan to be fleeced and maltreated.

The palliative methods so largely used by some men, not only in the treatment of hemorrhoids, but all diseases of the rectum, are in a large percentage of cases *absolutely worthless*, and the sooner the men who attempt to treat these cases realize this, the far more successful will they be in their results.

[Here follow the opinions referred to

above, but which, on account of their great length, we are compelled to omit.]

From the above it is very evident that the consensus of opinion is still strongly in favor of the ligature; the prevailing reason seems to be that there is a greater degree of security from hemorrhage after its use than by any other method. The method by clamp and cautery, when *properly applied*, gives results in every way equal to those produced by the ligature, but in the hands of inexperienced operators it is more likely to be followed by hemorrhage and stricture of the rectum. The injection of carbolic acid is not a radical method, and it is very uncertain and dangerous. Those who formerly used it most extensively now very seldom resort to it, if at all. Its only field seems to be as a palliative in very mild cases, or when radical treatment is positively refused or contra-indicated, and at such times the only safety lies in the use of weak solutions.

The use of Whitehead's methods in cases of ordinary hemorrhoids is unjustifiable. There is positively no excuse for using this method, which subjects the patient to so severe an operation and which may be followed by so many distressing after-effects, when the ligature or clamp and cautery produce excellent results with very little danger. For those cases in which the entire circumference of the anus is involved its use may be necessary, but that these cases are very seldom seen is abundantly proved by men of the widest experience.

The method of digital torsion and compression, as used by Dr. Thomas H. Manley, has not been tested to any extent. It may prove useful in occasional cases when radical measures are either refused or contra-indicated. Very few surgeons would care to use this method in severe cases and expect a radical cure.

In cases of the capillary variety nothing proves as beneficial as the application of nitric acid; it is almost painless and always efficient.

That dilatation of the sphincter will *cure* any case, however mild it may be, is very doubtful. It is undoubtedly a palliative in very mild cases, but, like other methods of this kind, gives very little satisfaction.

As the above letters and quotations represent the ideas of many of the leading surgeons of this country on the subject in hand, and very plainly show which methods are safest and most efficient, it is deemed unnecessary to present more than the following brief conclusions:

1. The ligature is the safest method of operating for internal hemorrhoids, as there is less likelihood of its being followed by hemorrhage, strictures or ulcers.
 2. The clamp and cautery causes less pain, shorter convalescence, and is less likely to be followed by retention of urine than when the ligature is used; but hemorrhage and stricture of the rectum may very often follow its improper application.
 3. The practice of Whitehead's method should be limited to those cases in which the entire circumference of the anus is involved. In ordinary cases of one or more hemorrhoids *it should never be used*, as it is liable to be followed by severe after-effects, and at best could produce no more radical result than the clamp and cautery or ligature.
 4. Simple dilatation of the sphincter, injection of carbolic acid and Manley's method are simply palliatives, and their use is very limited.
 5. There is no single operation which is available in all cases. Experience alone should suggest the most efficient method of treating each individual case.
- Mathews' Medical Quarterly.*

Abstracts.

TREATMENT OF CROUPOUS PNEUMONIA.—Kiad, in a paper published in *The Practitioner* (September, 1894) confines his remarks to two remedies—opium and strychnine. He says that to him the only definite contraindication to the use of opium is furnished by symptoms of impending exhaustion of the respiratory centre—shallow, labored respiration, drowsiness and a tendency to cyanosis. While not a drug to prescribe in a routine way, it is not denied that excellent results may be adduced in favor of such a practice. The chief indications for giving opium, with the reservation just mentioned, seem to be—severe pain that cannot be controlled by other measures, insomnia, restlessness and delirium. While it is not claimed that these symptoms should always be treated by opium, they may be often effectually and always safely so treated at any stage of the disease. The drug is generally best given in one full dose at bedtime—say 10 grains of Dover's Powder or 1-6 to $\frac{1}{4}$ grain of morphine hypodermatically. Under this treatment, which was in some cases continued from the beginning of the attack to the crisis, the number of respirations were generally reduced by ten or twelve in the minute, the pulse being either unaffected or exhibiting a very transitory reduction in the number of beats. No marked effect on the expectoration could be traced. In the use of strychnine he supports the views of Hobershon, who holds that its efficacy is due to its action being exerted on the excito-motor nerve apparatus of the heart and on the respiratory centre. The action of strychnine brings indirect support to the view that in pneumonia what we have to fear is the influence of

toxines on the nervous system. On this hypothesis cardiac failure is only an expression of exhaustion of the nerve centres, and is therefore an indirect effect of the poison. It is best given hypodermatically directly into the gluteal muscles in doses of 1-60 grain, the indications for its use being derived from the pulse. If the tension begins to sink or if the frequency of the beats is much increased, it should be tried at once. Its good effect on the pulse and the respiration is often manifested in 10 or 15 minutes. When the rally is not maintained the above dose may be repeated every two hours until three or four doses have been given, and then once or twice in the 24 hours until the pulse and respiration right themselves. In the treatment of delirium strychnine often acts more beneficially than alcoholic stimulation.

CACTUS GRANDIFLORUS.—Sharp (*The Practitioner*), in a paper reciting the results of investigations in the pharmacology and therapeutics and clinical effects of cactus grandiflorus, draws the following conclusions:

The literature of cactus grandiflorus is comparatively extensive, but vague, too many properties being ascribed to the drug, and upon too slender evidence, there being no authoritative evidence of a pharmacological or carefully carried out therapeutical kind.

The chemistry is as yet unknown, authorities on this subject not even mentioning the presence of a glucoside or alkaloid; and, so far as we can make out after extensive trials, we have been able to obtain neither of these bodies.

The most important agents we find to be a series of resins.

The pharmacology is necessarily indefinite, one having to work with insoluble resins. These contract the blood-vessels of a frog, but this is not of the nature of a digitalis contraction, but depends, I believe, on simple acidity. On the heart of the frog the resins have little or no effect, comparisons being made with digitalis in the same animal. The drug itself would appear to be pharmacologically inert, and there is no proof that it shortens diastole, nor, in fact, that it has any special action on the heart muscle at all.

The therapeutics of the subject, I think, are clear enough. *Cactus grandiflorus* cannot be included in our list of cardiac drugs. It is not even a simple stomachic tonic, and at most all one can say is that it has some small diuretic action.

TREATMENT OF THE PEDICLE AFTER MYOMECTOMY.—In the discussion of this subject before the Eleventh International Congress, Mangiagalli remarked that his task would have been an easier one a few years ago, when completely vaginal or abdomino-vaginal hysterectomies were as yet unknown, and it was only necessary to decide between the external and the internal treatment of the pedicle—a question which used to be the centre of all discussions upon uterine myomectomy. In these days there are more important matters to discuss than the treatment of the pedicle. That this is not of the first importance is shown by the fact that he is prepared to show, by statistics whose truth he has proved, that all the methods of treating the pedicle are good, and that all are in process of improvement. Statistics, in fact, demonstrate that the

mortality is diminishing yearly, without reference to the method used. On the other hand, in relation to the prognosis of the operation, more attention should be given to other considerations which have been too much neglected and which relate to the seat of the tumor. Whatever the method of operation, intraligamentous myomata give worse results than others, and the bad results increase with the size of the tumor. These tumors should therefore be placed in a category by themselves, since they give a mortality much greater than that in the case of subserous, submucous or interstitial tumors, which, as a rule, whether by the external or the intra-abdominal treatment, give a mortality of only 5 p. c.

From 1887 to 1893 he performed 80 hysteromyectomies, using all the methods, and the mortality was 11—that is to say, a percentage of 13.75 deaths. Mangiagalli summed up as follows:

1. Comprehensive statistics cannot give satisfactory results, owing, in part, to the heterogeneous nature of the materials upon which they are based, in part to errors due to the fact that they are compiled from the reports of operators who quote isolated cases, as well as those who have a vast experience, and in part from the fact that many lethal cases are never published.

2. Individual statistics are of great value, but are often deficient in analyses of cases.

3. Statistics show that the mortality of the operation is progressively decreasing, whatever the method used, and that each method can claim magnificent results.

4. The importance of treatment of the pedicle in the prognosis of hysterectomy has been greatly exaggerated.

5. Other general and local conditions are deserving of more attention. Among

these may be mentioned as of prime importance the intra-ligamentous development of the tumor, which increases the gravity of the prognosis in proportion to the volume of the tumor.

6. In a consideration of the results obtained by the various methods, it is essential to make a distinction between fibromata which develop within the ligaments and the other varieties of fibroma, subserous, submucous and interstitial. In this second class the mortality is about 5 p. c. by both methods, and it is not likely that this prognosis will be improved by total ablation, whether abdominal or abdomino-vaginal.

7. With the exception of a few cases, to be determined by the clinician, the external method must yield the palm to the endo-peritoneal method, by which it has been proved that a lower death-rate is obtained with an avoidance of some of the drawbacks of the extra-peritoneal methods.

8. As a rule, preference is to be given to Zweifel's method because of its simplicity and rapidity. Mangiagalli would, however, object to the substitution of the elastic ligature for a silk ligature *when the former is covered by an edge of peritoneum*.

9. Intraligamentous fibromata show a high mortality, and the question of the method to be used is of importance. Total ablation by the abdominal method might be valuable.

10. Vaginal hysterectomy for fibromata may be considered a valuable acquisition to science, and by force-pressure and *morcellement* its boundaries have been greatly extended, but, not being a method of universal application, it should not be compared with the foregoing. It may profitably replace castration when this is indicated, and in general may be applied when the size of the uterus is not greater than that of

a gravid uterus at four months.—*Amer. Jour. of Obstetrics.*

WHALE'S MILK.—The following article appeared several years ago in the *Rockland (Maine) Courier-Gazette*:

Whale's milk is now highly recommended for certain diseases. The only difficulty that we can see in carrying out the idea is in getting the milk. Who will milk the whale? Nobody has ever tried it, and it is not known whether or not the moral nature of the whale will permit such liberties being taken. Of course if you could get a whale of good disposition, one that is kind and affectionate by nature, there would be no difficulty; but suppose you run across a whale that is vicious, and just as you get a pail full of milk she flaps her tail around and catches you in the eye, and then steps in the pail? Though, come to think of it, a whale couldn't step in the pail, because she hasn't any feet—but we don't know as that makes any difference, either, for a yardstick has three feet and it can't step in a pail. But really and truly; and no joking, we don't see how this whale-milk industry is to be cultivated. Suppose a man wants to go into it for a speculation, and he advertises in advance that he will supply whales' milk to all kinds of invalids at lowest prices, with reduced rates to clubs. It will be his object, of course, to keep a stock of thoroughbred whales, though grades would not be undesirable. In order to get the best stock, he would have to send a vessel after his whales and lasso a brood in their watery fastnesses. Then he'd tow them into port. Then the only way they could be milked, as it looks to us, would be by a diver, and, as sure as you live, if a stranger went poking around a whale in a suit of diving armor, he'd be certain to tickle her, and that would

make her laugh, which would be liable to curdle the milk. But how could he milk into a pail under water? The water would run into the pail in that case as freely as it does in ordinary milking on land, and the result would be milk like that in every-day use, with possibly not quite so much water. Nobody is more friendly than we to new industries of this character, and we are glad to encourage anything that will ameliorate the condition of invalids, but the whale-milk business strikes us as being a trifle far-fetched. Better leave the whale to furnish stiffening for women's dress waists, and let its milk accomplishments remain uncultivated.—*Brooklyn Medical Journal*.

ETHER AND ITS RELATION TO THE KIDNEY.—Dr. George B. Wood, in a paper published in the *University Medical Magazine*, being the Isaac Ott Prize Thesis, gives the results of a number of experiments made by him looking to the methods of elimination of ether and its action upon the kidney. He considered that the most delicate test for the presence of ether in the urine was the sense of smell, as it was distinctly noticeable when one drop was put into two or three ounces of urine in an open beaker and allowed to stand twenty minutes. The blood of a dog killed after thirty minutes inhalation of ether smelled very strongly of ether. In the sixteen experiment there was no certain odor of ether in the urine except in one case, and in that the vessel containing the urine was found to have once contained ether, and to this was probably due the odor. He examined the kidneys of dogs killed after inhalation of ether and found in all a slight congestion in the edge of the cortex next the medullary substance. Microscopical examination showed distinct cloudy

swelling. This was no less marked in the animal killed five hours after the return of consciousness than in those dying during the administration of the ether. Repeated administrations for several days of the ether seemed to make the disturbance of the kidneys more general rather than more intense. He concludes that ether is a decided irritant to the kidneys, capable of causing a true parenchymatous degeneration of that organ, even when in a healthy state. The clinical application of this is very simple. If the kidney be a healthy one the action of the ether on it does not amount to much; but if the kidney be at all diseased ether should be administered only with the greatest care, lest its irritative influence tend to greatly increase the disease processes. The author offers the following summary:

First, as regards the relation of ether to the healthy kidney. It has been proved that ether exists as such in the free state in the blood, and yet coming, as it must, in close relation with the kidney, it is, contrary to previous opinions, not excreted by that organ to any appreciable amount. Nevertheless, it has been demonstrated that in ether anesthesia the kidney becomes congested, and on microscopical examination the cells show cloudy swelling. The cells of the convoluted tubules are primarily affected, the tufts and collecting tubules only evincing change when the anesthesia had been prolonged. Repeated administrations of ether, if kept up long enough, would probably cause desquamation of the epithelial cells.

Second, as regards the diseased kidney. The local effect of ether must be very deleterious to an already diseased kidney, for any unhealthy organ will not stand wear and tear like a normal one. In cases where uremic poisoning was commencing to make itself apparent, it

was shown that there existed a liability to sudden death during ether narcosis, due to the action of ether on the already depressed centres of respiration.

THE ETIOLOGY OF CARCINOMA.—M. van Niessen, of Wiesbaden (*Centralbl. f. d. med. Wissenschaften*, No. 21, 1894), who has been engaged for several years in an experimental research on the reaction of the cells of the human body, more particularly the leucocytes, to pathogenic micro-organisms, recently, while examining the blood and cellular tissue in a case of cancer of the uterus, discovered what he looks upon as a new organism. In the blood, which was received with strict precautions into a test tube directly from the wound by which the uterus was removed *per vaginam*, there developed after a week, along with various other micro-organisms a dark green, round mould about equal to a large pea in diameter and having a somewhat raised border of lighter tint. Microscopic examination and cultivation of this mould, which was of a species previously unknown to the author, showed a mycete intermediate between the mould and the yeast fungi, according to its degree of evolution. This fungus grew in remarkable luxuriance in the human blood, in sterile diabetic urine and in water; in the first of these media it very quickly developed its characteristic organs of fecundation.

* * Van Niessen expresses the belief that the new species of fungus which he claims to have discovered is the immediate cause of cancer. He proposes to call it on account of its close relation to *Cladosporium herbarum*, *Cladosporium cancerogenes* or "Canceromyces."—*Brit. Med. Jour.*

THE TREATMENT OF DIPHTHERIA.—Mirnow (*Berl. klin. Woch.*, July 23d, 1894) describes his investigations into

the treatment of diphtheria by antitoxins not obtained through the agency of immune animals. He first refers to the recent researches into the serum treatment of diphtheria and tetanus. On the ground of the change from toxin to antitoxin being a chemical one, he has tried to induce, by oxidation or reduction processes, properties in the serum of healthy or diseased animals like those possessed by immune animals. Positive results were obtained only by electrolysis. By exposing 100 c.cm. of dog's serum to a current of 120 to 140 milliamperes from 3 to 4 hours, the author obtained a serum which, when injected into animals, produced a rise of temperature. The change in the serum is due to an alteration in the albumen. Many animals were infected with diphtheria, etc., and then treated with this simple electrolysed serum. All died, notwithstanding that a high temperature resulted. The author then took ordinary serum, or its constituents, and inoculated it with diphtheria culture. After some time toxins were produced. A globulin culture was also made, but in this no toxins were developed. The serum or serum albumen cultures were then electrolysed, and it was seen that the toxins could be converted into antitoxins. It was also discovered that electrolysis of a bouillon diphtheria culture also converted the toxins into antitoxins. After a certain time a color reaction is developed in the electrolysed fluid, and at this time the electrolysis should cease. Some successful experiments are then recorded where the antitoxins from this electrolysed bouillon were used instead of those from electrolysed serum or serum albumen. It was found that a single large dose given subcutaneously was more efficient than divided doses. The antitoxins were harmless to the animals, and preserved their properties for a long time.—*Br. M. J.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

TREATMENT OF INOPERABLE MALIGNANT TUMORS WITH THE TOXINES OF ERY- SIPELAS AND THE BACILLUS PRO- DIGIOSUS.

Dr. William B. Coley has contributed in the *American Journal of the Medical Sciences* for July, 1894, an important paper, in which he recites his experience in the treatment of inoperable malignant tumors with the toxins of erysipelas and the bacillus prodigiosus. In the same journal for May, 1893, he published a paper with the report of ten cases treated by repeated injections of living fluid cultures of the streptococcus erysipelatosus. He was led to this line of experimentation by the favorable results attending an accidental attack of erysipelas in a patient suffering with a recurrent, inoperable, round-

celled sarcoma, in 1884. The results obtained by Dr. Coley are of such a favorable nature and the class of cases in which the treatment was used so hopeless and desperate under the usual conditions, that even if no increased success attended a further investigation of the subject, he has opened the way for the relief of much suffering and the prolongation of many valuable lives.

In the first case he recites, the patient, a man aged thirty-seven had been twice operated upon, once by Durante, of Rome, and the second time by Dr. Bull, of New York, in March, 1891. The case was a recurrent sarcoma of the neck and tonsil, too extensive for more than partial removal, the tumor of tonsil, about the size of a hen's egg, being undisturbed. Treatment began May 2, 1891, and continued to October with cultures of little virulence. The reactions following the injections were very

slight, still there was some improvement. In October, under the use of a very virulent culture, the tumor of the neck in part broke down and in part was absorbed, while the tonsil tumor diminished in size, but did not disappear entirely. The patient is alive and well, more than three years from the beginning of treatment. There remains some induration about the old scars, but this has not increased, and there is good reason to believe the patient *permanently cured*. Of the ten cases treated with living cultures six were sarcoma and four carcinoma—all inoperable. In only four of these cases was it possible, even with very virulent cultures, to produce an attack of erysipelas, but in the remaining six there were such good results that they furnished the hint as to the best practical method of using the antagonistic action of erysipelas without subjecting the patient to the necessary risk accompanying an attack of the disease. He was led to the belief that the antagonistic action resided in the toxins secreted by the streptococcus and not in the germ itself, and set about finding a method of separating the toxins. He first resorted to heat ($100^{\circ}\text{C}.$) to destroy the germs. The reactions following the injection of this fluid and the effect upon the tumors was the same in character as with the living cultures, but milder. He then employed filtered cultures without the use of heat. The cultures were obtained from a fatal case of erysipelas and grown for three weeks at a temperature of $37^{\circ}\text{C}.$, and passed through a Kitasato filter. Led on by the elaborate experiments of Roger upon rabbits, which proved the intensifying effect upon the erysipelas streptococcus of the bacillus prodigiosus, he determined to try the effect of a combination of the toxins upon sarcoma. The cultures of the bacillus prodigiosus

were prepared and treated in the same way as the streptococcus cultures. He has treated since December, 1892, 35 cases, of which 24 were sarcoma, 8 carcinoma, 3 either sarcoma or carcinoma. The doses of the toxins varied between 0.5 c.c. and 1.5 c.c. of the erysipelas, and 0.2 c.c. and 0.3 c.c. of the prodigiosus. The injections are made directly into the tumor. In the 36 cases there were 25 of sarcoma, 8 of carcinoma and 3 of either carcinoma or sarcoma. Five cases of sarcoma give reasonable hope of a permanent cure. The first case, sarcoma of neck and tonsils, has gone nearly three years without treatment. The second, sarcoma of back and groin, perfectly well and free from any trace of return fourteen months since injections were discontinued. The third, sarcoma of abdomen and pelvis, has been in perfect health one year since leaving hospital. The fourth, sarcoma of abdominal wall, which disappeared under two and one-half month's treatment, remains perfectly well and free from recurrence three months since cessation of treatment. The fifth, sarcoma of iliac fossa, is well one year since beginning of treatment, with the tumor one-third the original size and the element of malignancy apparently destroyed. In 8 cases of carcinoma there has been marked improvement in 2, slight improvement in 4 others and no effect in 2.

Dr. Coley's experience warrants him in drawing the following conclusions:

1. The curative action of erysipelas upon malignant tumors is an established fact.
2. This action is much more powerful in sarcoma than carcinoma.
3. This action is chiefly due to the toxins of the erysipelas streptococcus, which may be isolated and used with safety.

4. This action is greatly increased by the addition of the toxins of bacillus prodigiosus.

5. The toxins, to be of value, should come from virulent cultures and should be freshly prepared.

6. The results obtained from the use of toxins without danger are so nearly quite equal to those obtained from an attack of erysipelas, that inoculation should rarely be resorted to.

While the number of cases treated and the length of time in the favorable cases are not sufficient to establish definitely the fact that the toxins of erysipelas streptococci and bacilli prodigiosi are specifics in the treatment of cancer, the results obtained by Dr. Coley are of sufficient importance to direct the attention of the profession to this method of treatment, especially in those cases that have gotten beyond the aid of surgery.

THE MEETING OF THE BOARD OF HEALTH AT SALISBURY.

It seems from the reports of the meeting of the Board of Health at Salisbury that a long step has been taken towards instituting real sanitary reforms in this State. The people must be convinced by facts and figures that health is wealth and can be secured and retained, and that sickness is a source of loss that may be in many cases prevented. This meeting of the Board indicates a high grade missionary spirit, that means to preach the gospel of health and cleanliness in the cities, towns and hamlets of the State. They have started out in the best way to reach the masses, by holding public meetings with the people, instructing them by well-considered papers and by answering questions from the audience. The interest of the good people of Salisbury in the

work of the Board was a stimulus to the members to interest their audience and to provoke them to seek to draw out the many details that could not be set forth so well in a prepared paper. Questions were written on slips of paper and handed up to the stage, and the answers were given by the members of the Board.

The Board was called to order by the President, Dr. H. T. Bahnson, of Salem. The other members of the Board present were Drs. R. H. Lewis, of Raleigh, Secretary; John Whitehead, of Salisbury; S. Westray Battle, of Asheville, and George G. Thomas, of Wilmington.

Dr. Whitehead introduced Rev. Dr. Murdock, of Salisbury, who warmly welcomed the Board to his town and commended to his people the work they were undertaking for their instruction and benefit.

The first paper was a very instructive and interesting one on Tuberculosis, by Dr. S. Westray Battle.

The Doctor's intimate knowledge of this disease, his patients in that popular mountain resort being chiefly those afflicted with phthisis, made his remarks very instructive. He left his written work quite often to explain and clear up points that would otherwise have been involved to his hearers because they were more or less technical. The paper was one of great merit, impressing upon his hearers the nature of tuberculosis, its ravages, its increase, its mode of attack, *its contagiousness* and the means of limiting the scourge. The stress that was laid upon the fact that consumption belonged to the contagious diseases, made the audience pay closer attention to his remarks.

We said that Dr. Battle quite often left his written work to annotate it, so to speak, by explanations, and to his

hearers, both lay and professional, these were especially instructive.

He was followed by Dr. George G. Thomas, of Wilmington, on the Quarantine and Disinfection of Contagious and Infectious Diseases. This speaker followed the example of Dr. Battle and departed quite often from his paper to clear up vexed points. He dwelt with emphasis upon the necessity for the prevention of typhoid fever, by care of the drinking water and the premises.

He sought to instruct his hearers in the many ways a careless disposition of the dejecta of typhoid fever might sow the seed of the disease, in the well or spring water of one's own premises, or those of a neighbor; by the upturning of manure heaps where undisinfected matter had been thrown and turned up after long intervals; by its finding a nidus in filthy surroundings of the house and lot, the privy, or the barn-yards. The same lessons were taught regarding diphtheria and scarlet fever, and emphasis was laid upon the necessity of rigid quarantine and thorough disinfection.

The people were asked to read the "Instructions for Quarantine and Disinfection" issued by the able and hard-working Secretary of the Board, and these were freely distributed. After his paper was read a very commendable interest was manifested by the questions that were sent up from the audience.

The afternoon session was opened by an exhaustive and able paper on "Drinking Water and Malarial Diseases," by Dr. R. H. Lewis, of Raleigh, the secretary of the Board. He concluded that in many of the counties in the Eastern part of the State, where the shallow surface wells had been abandoned and driven wells substituted, that malarial fevers were markedly less prevalent. This position, he first argued, was

most reasonable, and proved its tenability by numerous letters from laymen and physicians corroborating his views. These letters were answers to the circular letters he had sent out all over the Middle and Eastern part of the State, asking for the experience with driven wells in places of shallow wells, furnishing only surface water.

Dr. Lewis is possessed of a remarkable ability for pointing his lessons with clear and striking sentences. He is at once one of the best writers and best teachers in the profession, and his selection for the office of Secretary of the Board has been justified by his excellent work. To him the State and profession is indebted for the new health laws enacted by the last Legislature. The draft that he submitted to the Board of Health, convened in Raleigh in January, 1893, was but slightly amended and in no wise altered except in minor details. He is the author of the explicit and full directions of the Quarantine and Disinfection of Contagious Diseases—this leaflet is issued by the Board—and it was his wisdom that first worked out these missionary meetings of the Board, which seem to us so full of hope and possible good.

The paper from Mr. J. C. Chase, the Civil Engineer of the Board, on "Water for Domestic Uses," was well considered, and the two papers elicited much interest and many questions of the most practical character, which Dr. Lewis, in his own happy way, satisfactorily answered.

A large audience greeted the Board at the evening session. Dr. George G. Thomas occupied the Chair in the absence of Dr. H. T. Bahnson.

Dr. Wilson, of Guilford, read "The Lesson of a Typhoid Fever Epidemic." This was a most complete object lesson, as it told in detail the histories of three

or more cases of this fever that had occurred from neglect to protect the water supply from undisinfected typhoid stools.

The paper brought Dr. Lewis to his feet, and his emphatic and impressive remarks made a most fitting close to the work of the day.

The questions that followed the paper were answered, and Dr. Thomas, after thanking the people of Salisbury for their hearty welcome and appreciative attendance on the three sessions of the Board, declared the meeting adjourned.

We believe that this is a new departure in sanitary work that needs the most

earnest thought and commendation. It was a meeting of the Board, not in close session, but in a public hall, *with the people*. The plan was inaugurated for their benefit, and we believe the good work will be shown by the results. We are glad to know that these meetings will be held every four months at different points in the State, and we wish to offer the pages of the JOURNAL for the promulgation of the lessons that have been or may be taught. We will welcome the full stenographic report of the proceedings, which will appear in the biennial report.

Reviews and Book Notices.

NC Med J (os) 34: 182, # 4, Oct 1894 —

About Mushrooms. A Guide to the Study of Esculent and Poisonous Fungi. By JULIUS A. PALMER, JR. Muslin; Octavo; Pages 100. Lee & Shepard, Boston, 1894.

"Eat it—if it kills you, it is a toadstool; if not, it is a mushroom." Mr. Palmer, in the little volume before us, has endeavored to give to those who are altogether inexperienced in fungology more assuring rules than the above for the determination of the edible fungi. It seems a pity that the tons of this most delectable and wholesome food, growing about our very doors, should be permitted to go to waste, simply on account of our fear of getting a variety which is poisonous. We have heard Rev. Dr. Moses Ashley Curtis credited with the assertion that there were enough edible mushrooms in North Carolina to sustain a regiment of soldiers several months of the year. Probably the gratification of the palate in eating mushrooms is not a greater pleasure than is

experienced in gathering them and selecting the good from the bad. Who does not eat with greater zest the game of his own killing than that bought in the markets?

Mr. Palmer makes it possible for any intelligent person, who will study carefully the rules he lays down, to gather a basket of mushrooms that may be eaten with impunity. He also recommends as an antidote in cases of poisoning sweet oil with equal parts of whiskey or vinegar, in doses of a wineglassful. Those whose gastronomic aspirations lead them beyond the confines of those ordinary articles of diet, the safety of which is without question, had better provide themselves with a copy of this book and hie them to the fields and forests. There they will find toadstools of delicate and delightful flavor, with a helpful mixture of exercise, fresh air and diversion.

* * * * *

An American Text-Book of the Diseases of Children. Including Special Chapters on Essential Surgical Subjects; Diseases of the Eye, Ear, Nose and Throat; Diseases of the Skin; and on the Diet, Hygiene and General Management of Children. By American Teachers. Edited by LOUIS STARR, M.D., Physician to the Children's Hospital and Consulting Pediatricist to the Maternity Hospital, Philadelphia, etc., etc., etc. Assisted by THOMAS S. WESTCOTT, M.D., Attending Physician to the Dispensary for Diseases of Children, Hospital of the University of Pennsylvania, etc., etc. Royal Octavo; pp. 1190. Price, cloth, \$7.00; sheep, \$8.00; half Russia, \$9.00; by subscription only. W. B. Saunders, Philadelphia, 1894.

The general excellence of the preceding volumes of this series of American Text-Books has been fully maintained in the present volume. The Editor, Dr. Louis Starr, has already given to the profession an excellent treatise on the diseases of infancy and childhood, and it was a most excellent selection when the publishers chose him as the director of this important work. The list of contributors presents the names of many eminent teachers, and these are by no means confined to those gentlemen who devote their attention to children's diseases only.

Each different subject was allotted to the authority who was, in the Editor's opinion, best fitted to portray it. Thus we select, at random, from the table of contents the following subjects, simply as an earnest of what is to be found there: Tuberculosis, by William Osler, M.D.; The Chemistry of Milk and of Artificial Foods for Children, by Albert R. Leeds, Ph.D.; Measles, by Louis Starr, M.D.; Tracheotomy and Intubation of the Larynx, by Henry R. Wharton, M.D.; Malarial Fever, by W. S. Thayer, M.D.; Rachitis, by J. Lewis Smith, M.D.; Scorbutus, by W. P. Nor-

throp, M.D.; Diarrhœal Diseases, by V. C. Vaughn, M.D.; Chronic Constipation, by J. Henry Fruitnight, M.D.; Intussusception, by John Ashhurst, Jr., M.D.; etc., etc. In the part devoted to Diseases of the Nervous System, we find the names of such authorities as London Carter Gray, Charles K. Mills, F. T. Miles, Archibald Church, etc. Special sections on Diseases of the Skin, Ear and Eye are under the care of Dr. W. A. Hardaway, Dr. B. Alexander Randall and Dr. G. E. DeSchweinitz, respectively. While the space allowed for these subjects is far too small for them to be treated with anything like thoroughness, the reputation of the authors is a guarantee that what is found there is up to date.

The volume is liberally illustrated with lithographs and woodcuts and is up to the excellent standard in mechanical execution established by the publishers. Embracing, as it does, the opinions of so many of the leading teachers of this country, the volume is well worthy of the title it bears, and the indefinite "An" in the title might rightly be changed to the definite, making the title read "*The American Text-Book of the Diseases of Children.*"

Where to Send Patients Abroad for Mineral and Other Water Cures and Climatic Treatment. By Dr. THOS. LINN, Doctor of Medicine, Faculty of Paris, etc. The Physician's Easy Library. Price, paper, 25 cents; cloth, 50 cents. George S. Davis, Detroit, Mich., 1894.

The author gives briefly the main points to be observed in sending patients to foreign watering places, and follows this with an alphabetical list of diseases, giving under each the names of the resorts where it is most likely to be improved. The book should be in hands of physicians, for even if they are not

in the habit of sending patients abroad, it will be well for them to be prepared to furnish definite information on the subject to any one seeking it.

An Illustrated Dictionary of Medicine, Biology and Allied Sciences.

Including the Pronunciation, Accentuation, Derivation and Definition of the Terms Used in Medicine and the Allied Sciences. By GEORGE M. GOULD, A.M., M.D., Author of "The Student's Medical Dictionary;" "12,000 Medical Words Pronounced and Defined;" "The Meaning and the Method of Life;" Editor of *The Medical News*: President, 1893-94, of the American Academy of Medicine; one of the Ophthalmologists of the Philadelphia Hospital. Philadelphia: P. Blakiston, Son & Co., 1894.

Since the announcement by the publishers, some months ago, that this volume was in preparation, we have awaited its appearance with much interest. The work contains 1633 pages, and is not a compilation from other dictionaries, but is built entire by the author, who, with a corps of efficient assistants, has systematically gleaned countless numbers of volumes and periodicals from the living literature of the day.

The objects in view have been—

1. The inclusion of the many thousands of new words and terms that have been introduced into medicine during the last few years.

2. To give the most compact epitomization of the works of older and authoritative lexicographers.

3. To include all the more commonly-used terms of biology.

4. Keeping the size and purpose of the book well in view, to give it an encyclopedic character.

5. When advisable, to give a pictorial illustration that would tell what words could not make clear.

6. To cast the influence of the dictionary in favor of the movement which the language is making toward a more consistent and phonetic spelling.

7. To indicate the best pronunciation of words by the simplest and most easily understood phonetic spelling.

One who has been reading after Dr. Gould, in the *Medical News*, is not surprised to find such spelling and terms as "anemic" and "biologic" preferred to the old-style "anæmic" and "biological," though the latter are always given. The author has endeavored to include all such obsolete or obsolescent terms as may be met with in the medical encyclopedias or handbooks that are likely to be used by the modern student. This will be appreciated by all those who read much, for even though a term may be obsolete, one desires to know the meaning of it and is always disappointed when he fails to find it in his dictionary.

Besides the pronunciation, spelling, derivation and definition of terms, the author has prepared tables which will prove of great use and convenience to the student. We need refer only to those devoted to Arteries (22 pages), Bacteria (31 pages), Bandages, Bones, Convolutions of Cerebrum, Surgical Knots, Muscles, Nerves, Parasites, Sutures, Tumors, Urinary Sediments, all of which are illustrated; and such others as Skin Diseases, Operations, Fevers, Poisons, etc., etc.

The illustrations are good and the space of the book is not taken up with the superfluous cuts of well-known instruments and such things. The publishers have done their part well, the typography and binding being of the highest order. We cordially commend the volume as being thorough and reliable, and we have not yet detected an error which could be rightly classed as such.

Notes of Practice.

DIETETIC TREATMENT OF PHTHISIS.—Loomis (*Practitioner*, No. 311, 1894) makes the following suggestions regarding the dietetic treatment of phthisis:

(1) Never take cough mixtures if they can possibly be avoided.

(2) Food should be taken at least six times in the twenty-four hours; light repasts between the meals and on retiring.

(3) Never eat when suffering from bodily or mental fatigue or nervous excitement.

(4) Take a nap, or at least lie down for twenty minutes before the mid-day and evening meals.

(5) The starches and sugars should be avoided, as also all indigestible articles of diet.

(6) As far as possible each meal should consist of articles requiring about the same time to digest.

(7) Only eat so much as can be easily and fully digested in the time allowed.

(8) As long as possible systematic exercise should be taken to favor assimilation and excretion; when this is impossible, massage or passive exercise should be undergone.

(9) The food must be nicely prepared and daintily served—made inviting in every way.

The following diet-sheet is suggested for the early stage. On awakening, 8 ounces of equal parts of milk and seltzer, taken slowly through half an hour. Breakfast: oatmeal and cracked wheat, with a little sugar and an abundance of cream, rare steak or loin chop with fat, soft-boiled or poached egg, cream toast, half pint of milk, and small cup of coffee. Early lunch: half pint of milk or small tea-cup of squeezed beef-juice, with

stale bread. Mid-day meal: fish, broiled or stewed chicken, scraped meat-ball, stale bread and plenty of butter, baked apples and cream, and two glasses of milk. Afternoon lunch: one bottle of Koumyss, raw, scraped beef-sandwich or goblet of milk. Dinner: substantial meat or fish soup, rare roast beef or mutton, game, slice of stale bread, spinach, cauliflower, fresh vegetables in season (sparingly).—*Univ. Med. Mag.*

THE SURGICAL USE OF COCAINE.—Dr. Merrill Rickets (*Medical and Surgical Reporter*) says, respecting the use of cocaine in surgery:

Solutions should not be made except at time of operation. Cold-water solutions will add materially to the good effects of the cocaine.

An operator should accustom himself to but one kind of cocaine and confine himself to that.

The operator should prepare the solution himself and not entrust it to an assistant.

Only small amounts should be used, especially in the young, the old, and in highly nervous persons, and in operations upon the face, head and neck.

Operations should be made as soon as possible after the area has become anæsthetized, that as much as possible of the solution may escape through the wound, and thus not enter the general circulation.

The finest needle should be used, and its length should be sufficient to traverse the line of incision intra-cutaneously with but one puncture.

Intra-cutaneous and not subcutaneous injections should be made, because there

is less of the drug absorbed and because there is no pain to result from cutting tissue beneath the integument.

The nearer the injection is to the end of the member the less is the amount of absorption.

The prepuce, fingers, toes, hands and feet can be constricted in such a way as to prevent, to a considerable degree, the entrance of the solution into the general circulation.—*American Lancet*.

TREATMENT OF EPIDIDYMITIS.—Dr. Bernard E. Vaughn, in the *American Medical and Surgical Bulletin*, suggests the following:

I stop the injections and balsams and put the patient on the following pill: Hydrarg. iod. viride, grn. $\frac{1}{4}$; pulv. glycyrr., grn. 1, and ext. hyoscyam., grn. 1. This is given three times a day. Morphine may be indicated for severe pain, but if possible should be avoided. Advise rest in bed. Locally, lead and opium wash may be employed by means of a compress covered with rubber tissue, and over this a good suspensory bandage may be applied to hold the compress in place. The patient is instructed to keep the compress constantly moist by frequent reapplication.

This has practically the effect of a poultice; the opium seems to relieve the pain, and the lead water contracts the scrotal tissue. I have tried many methods of treatment, but I find this the most satisfactory. When the acute symptoms have subsided, I use ointments of mercury and iodide of lead to favor the absorption of the induration.

Next in usefulness I will mention the tobacco poultice or the simple flaxseed poultice. Ice is very efficacious in relieving the pain, but the induration left behind is firmer and more difficult of absorption.

Strapping the testicle with strips of

adhesive plaster prevents swelling, but to cause absorption I consider it useless. If it is put on too tightly it causes pain and may cause atrophy of the testicle; and as soon as there is any diminution of size the pressure ceases and must again be reapplied, which is a disagreeable operation, and not justified by the results obtained.

I wish, especially, to call attention to the necessity of treating the posterior urethritis after the epididymitis is relieved. This should always be carefully attended to, otherwise a recurrence of the epididymitis may be expected.

CYSTITIS IN WOMEN.—For relieving the tenesmus and pain in acute cystitis in women, Dr. Lutand recommends (*N. Y. Med. Jour.*) the following suppositories:

R.—Morphine hydrochloride,
Cocaine hydrochloride, aa gr. 3-20
Ext. of belladonna.....gr. 3-40
Cocoa butter.....gr. 45

One of these should be used every four hours until the tenesmus and pain have disappeared.

Or the following may be substituted if opiates disagree:

R.—Cocaine hydrochloride.....gr. 3-20
Ext. hyoscyamus.....gr. 3-10
Cocoa butter.....gr. 45

Three or four may be used in the twenty-four hours. Rectal injections of laudanum are very useful. If there is insomnia, chloral may be given, always in enemata, and the minimum dose should be 60 grs. for an adult:

R.—Chloral hydrate.....dr. 1
Yolk of egg.....No. 1
Water or milk..... \bar{z} 2 i-2

A SIMPLE BATH FOR FEVER PATIENTS.
—Procure a rubber sheet of extra quality

and four by seven feet in size. The sheet is slipped under the patient and the sides and ends are then raised by bolsters or boards, special care being given to the corners. If the rubber is of good quality not a drop of water need find its way to the bed, and your patient has not been inconvenienced in the slightest degree. The water of any desired temperature may then be poured upon the patient either from buckets, the watering-pot, such as is used for sprinkling flowers, or from a sponge. If

the sides of the "tub" are raised sufficiently the water may be made to completely cover the patient's body. The patient will also in this way be more conveniently rubbed, which process should never be omitted during the progress of the bath. We have had experience with this method and believe it can be made almost as heroic as the regular tub. While it can be easily carried out by one person it requires of the patient slight exertion, and the sheet is inexpensive and easily transported.

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Dr. Charles T. Harper has removed from Wilmington to Baltimore. His address is 1800, Saratoga street, West.

The Twenty-Fifth Annual Session of the Medical Society of Virginia will be held in Richmond, Va., beginning October 23d, 1894. Dr. London B. Edwards, Richmond, Secretary.

Dr. W. H. Cobb, Jr., received, recently, a fall from his bicycle due to the breaking of a wheel, with a simple fracture of the arm as a result. Evidently the Doctor was not riding a Columbia. We wish him an early recovery.

Dr. T. R. Evans, of Burlington, Iowa, has been appointed to fill, temporarily, the Chair of Obstetrics and Practice of Medicine in the Medical Department of the University of Virginia, made vacant by the death of Professor Dabney.

The Board of Directors of the North Carolina Insane Asylum held a meeting on the 27th of September to elect two assistant physicians to fill the vacancies caused by the resignation of Dr. W. H. Cobb, Jr., and the death of Dr. F. T. Fuller. Drs. J. A. Faison, of Mount Olive, and A. S. McGeachy, of Fayetteville, were elected.

Dr. M. M. Holland, one of the best known physicians in Bullock county, Georgia, is under arrest in Savannah, charged with sending obscene letters through the mails. The letters were received by a lady in Savannah and similar ones by a lady in Statesboro. The Doctor indignantly denies the charge.

The Seventh Annual Session of the Southern Surgical and Gynecological

Association will be held in Charleston, November 13, 14 and 15, and promises to be the most successful in the history of the organization. Papers will be presented by the leading surgeons and gynecologists of the South. The medical profession is cordially invited to attend. Dr. Cornelius Kollock, of Cheraw, S. C., is President.

A case is reported in *The Lancet* of a child 2 years 11 months old who swallowed a pocket-knife, just under 3 inches in length, and two hours afterward passed it by the rectum, at no time having suffered any pain or inconvenience. On the same page of the same journal is the report of an operation, with recovery, for acute intestinal obstruction in a woman 22 years old, due to a gall-stone.

The ball-room of the Kimball House, Atlanta, Ga., has been secured for the next meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee, October 9th, 10th and 11th. The room is well adapted to the purpose, being centrally located, free from street noises and having fine acoustic properties. Dr. Frank Trester Smith, Chattanooga, is the Secretary.

The remark of Dr. Osler, at the recent dinner of the Harvard Medical Alumni Association, that 33.3 per cent. of the women medical students at the Johns Hopkins Medical School has been married at the end of the first session, has been gravely quoted by the medical press as a failure in co-education. Dr. Osler very properly asks what will happen at the end of the fourth year? The remaining two women in the class stand a poor show of graduating.—*Ex.*

Miss Mary E. Bartlett, late of Malden, Mass., has brought suit for \$150,000 damages against the estate of the late

Dr. Henry J. Bigelow for alleged breach of promise of marriage, made by the Doctor some time before his death. She says that she fully believes that the Doctor would have kept his promise to wed her had not death intervened. After his death Miss Bartlett tried to recover from his executors \$150,000, which, she said, the Doctor promised her if she remained true to him, but they refused to surrender that sum. The suit will be tried in the Middlesex court next week.

THE VALUE OF OUR MISTAKES.—It is always a pleasant thing to be right, but it is generally a much more useful thing to be wrong. If you are right, all that you do, as a rule, is to confirm your previous opinion, your previous habits of reasoning and your previous self-esteem. But if you are wrong, you generally gain in knowledge and gain perception of the way in which your method of diagnosis needs improvement, and the influence on self-esteem is not likely to do you harm. At least that is my own experience, and I think I have observed it confirmed in others. But the result is dependent on deliberate effort. There is a strong temptation to smooth down error, and it is very easy not to gain from it its precious lesson. It is more easy to fancy that there is some accidental cause for the mistake than frankly to perceive that it is a fault. But if you make a deliberate effort to realize and to face in your own mind the mistake you have made, to discern its cause, and to employ this perception as far as you can to remove the cause and prevent a like mistake in the future—if you do this, almost every error becomes one of the precious experiences of your practical life.—Dr. W. R. GOWERS.—*Ex.*

Mrs. Barbara Young, of Baltimore, has brought suit in the Court of Com-

mon Pleas for \$25,000 damages against the College of Physicians and Surgeons of that city, Dr. Nathaniel G. Keirle and Dr. Edwin Geer, professors in the College. The damages are claimed for the alleged dissection of her husband's body without her knowledge or approval, and for the "mental and bodily suffering occasioned thereby." Her husband was a car-coupler, and in March, 1893, received injuries for which he was carried to the City Hospital, where he died the following morning. The plaintiff alleges that the body was detained from burial and used as a subject for instruction of students; that various parts of the body were dissected; that the brain was removed and the skull filled with oakum. She claims all this was done secretly and to prevent detection the incisions had been sewed up. She had the body exhumed after burial and examined in the presence of a physician.

The defence claim that it was only a legal post-mortem examination that was made, to discover the cause of death, as the injury was not considered sufficient to cause death and the patient died suddenly. The injury was crushing of the right leg, requiring amputation. Dr. Geer is city coroner and Dr. Keirle city post-mortem physician. The result is said to have disclosed that death resulted from shock. It was asserted that the brain is always removed in complete post-mortem examination and not returned. The Court overruled a demurrer by the defence and held that the plaintiff's right of property in her husband's body was sufficient for her to maintain an action at law. Another demurrer was entered on the plaintiff's part, contesting the plea of the defendants that the mental suffering of Mrs. Young could not be lawfully considered in the suit. The Court sustained the demurrer. The defendants won.

THE JOURNAL will be pleased to welcome any and all physicians visiting the city. They will find books and periodicals, paper, pen and ink, and they are heartily welcome to make free use of them. Office at 305 North Fourth street. Call and see us, Doctor, when you are in the city.

HEALTH of Wilmington for September:

	Whites.	Col.	Total.
Population.....	9000	13000	22000
Deaths.....	9	31	40
Death-rate represented..	12.00	23.6	21.8

Meteorological. — Mean temperature, 76°; highest temperature, 94°; lowest temperature, 63°; clear days, 15; partly cloudy, 3; cloudy, 12; days on which rain fell, 12; total precipitation, 6.34 inches; mean relative humidity, 86; mean barometer, 30.05.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The Twentieth Annual Meeting of this well-known organization will be held at Hot Springs, Ark., November 20th, 21st, 22d and 23d, 1894. The interest and enthusiasm manifested in all parts of the country concerning the meeting in November, is certainly remarkable. The fact that Hot Springs is to be the place of meeting will probably be an inducement for many to attend. From the large number of favorable responses, the Secretary, Dr. Frederick C. Woodburn, of Indianapolis, Ind., is predicting an attendance double that of any previous meeting of the Association. Let every doctor who can possibly leave home for a few days go to Hot Springs in November. Let him take his family and his friends, and not only a profitable meeting, but a royal good time will reward him for the exertion. Dr. Xenophon C. Scott, of Cleveland, O., Presid't.

MEDICAL OPINION AS TO THE USE OF OPIUM AMONG THE CHINESE.—Dr. Duncan Main, Physician-in-chief of the

large Mission Hospital and Opium Refuge at Hang-Chow, gives in his annual report, lately published, his adverse opinion of the evils of Chinese opium-smoking in very clear terms. The paragraph here quoted refers chiefly to his observations at the Refuge for opium-users who apply for treatment: During the year 97 who came to us seeking to be relieved of the debasing habit received our kindly help. The number included all grades of society and all classes of men. My opinion about the evil effects of opium-smoking is unaltered. No one in his sober senses can say anything in its favor, unless he talks nonsense. We never come across "an opium-smoker or a non-opium-smoker who has anything to say in favor of the habit, and if it were such an innocent affair as some advocates of it try to make us believe, surely we who live among the people from year to year would find it out. I think far too little is made of this most important fact. Surely the voice of the people should be listened to, and the testimony of those who have paid flying visits to opium-smoking countries and gathered their information through interpreters, should be discounted. Many, I fear, are influenced by pecuniary or personal motives, and some, no doubt, take up the cudgels for it, because missionaries are its chief opponents. To me it seems an utter impossibility for any one who lives among the Chinese, speaks their language, knows their lives, and mixes with them from day to day, to do anything else but condemn the base, cruel and demoralizing habit. It affects the Chinaman's person, principle and purse, damages his constitution, degrades his conduct and drains his cash, and in many cases leads to ruin and destruction of body and soul.—*Journal of the American Medical Association.*

WAS NOT SPOILED BY PROSPERITY.—A newspaper paragraph is going the rounds to the effect that a Scotch girl named Lithegow, recently graduated from the medical school of Ann Arbor University with a very fair record. Immediately following the event came the news that an uncle had died in Glasgow, Scotland, and left her a fortune variously estimated at \$650,000 to \$800,000. The young doctress exhibited no surprise or emotion on receiving the announcement, but merely said: "That will enable me to relieve the wants of the poor, without any regret for the loss of my time and labor."

THE IDEAL PHYSICIAN.—In an article upon the subject, how to choose a doctor, the author, Dr. Kane, says: "The ideal physician has intelligence, education, courage, patience, sympathy, truth and a high conception of the grand destiny of humanity. When you find such a one—one with a soul as well as mind and body, respect him and do not turn to the first humbug who 'knows it all,' when your good physician, in his honesty, sometimes says: 'I do not know,' in reply to a question that science itself has not yet answered. If he sometimes says that you do not need medicine, and gives you some good advice in regard to your manner of life, instead prize him. He is honest.—*Ex.*

A GRIM VIEW OF IT.—The death of an ossified man in Tennessee is reported. He died hard.—*Chicago Tribune.* This is as bad as the man who swallowed a thermometer and died by degrees; it suggests also the case of the consumptive undertaker who died in a fit of coffin.—*Medical Record.* These remind us of a man who choked while eating an apple, and died of applepexy.—*National Medical Review.* It was in a St. Louis

hotel that a Pike county farmer blew out the gas, and died from gastritis.—Meyer Brothers' Druggist. Not any worse than the man struck by an engine; verdict, died from locomotor attacksia.—Montreal Pharmaceutical Journal. Still worse the case of that pie-eating dyspeptic of Tiflis, for he died of piemia, superinduced by typhlitis.—Gaillard's Medical Journal. The other day a negro in Southern Georgia ate six watermelons.

He died of meloncholia.—Atlanta Medical and Surgical Journal. Not long ago we saw a trestle-builder who had an aggravated case of piles. Nor any worse than the tailor who swallowed his tape-measure, and died by inches.—Times and Register. How about the man in charge of a hoisting machine, who had a fatal attack of his derricks?—North Carolina Medical Journal.

* * * * *

Obituary.

DR. FRANCIS TAYLOR FULLER

Entered into rest, at the North Carolina Insane Asylum, September 14th, 1894, Dr. Francis Taylor Fuller, First Assistant Physician in that Institution; a position which he had held for more than thirty-eight years. He has discharged all of his duties during all that time intelligently, conscientiously and faithfully and with the greatest kindness to his patients and the attendants of the Institution. It has been his life-work, and he has devoted all of his time, intellect and energy to the faithful and prompt discharge of every duty. He was always very gentle, mild and kind in his relations with all of the patients and attendants, who in return respected, admired and loved him.

Dr. Fuller was born in Granville county, North Carolina, June 14, 1835. He was educated at the South Lowell Academy, in Orange county, afterwards teaching school for a time before commencing the study of medicine under the direction of Dr. William R. Hicks, of Oxford. In 1855 he studied medicine under his kinsman, the late Dr. Charles E. Johnson,

of this city. He graduated in the Medical Department of the University of Pennsylvania in the spring of 1856, and in a short time thereafter he was elected Assistant Physician in the North Carolina Insane Asylum and entered upon his life-long work.

For twelve years he served as Assistant Physician to that excellent, intelligent Christian gentleman, Dr. Edward C. Fisher, Superintendent, who was a model of all that was required in a man to administer to the mental, moral and physical diseases of those under his care. For twenty-one years he was the Assistant Physician under Dr. Eugene Grissom, of Granville county, the able, energetic and popular Superintendent, who succeeded Dr. Fisher in 1868.

During all these years his intelligent and faithful services were justly appreciated by these gentlemen. Dr. Fisher, in his report for 1858, said, in referring to his obligations to those who had rendered official services: "In one special manner are those obligations due to the Assistant Physician, Dr. F. T. Fuller, for

his untiring devotion to duty at all times. Most faithfully did he conduct the affairs of the Institution in my absence the past and previous summers, and while assuring you of his entire capability and efficiency for the duties of his office, I present you with but an imperfect idea of my appreciation of his worth as an officer."

Superintendent Grissom said in his report for 1870: "The Assistant Physician, Dr. F. T. Fuller, by his experience, industry and constant devotion to the welfare of the patients, has placed the Institution and the State under a debt of gratitude."

In his report for 1878, Dr. Grissom said: "It can be considered no invidious distinction to mention the obligation of the Institution and the people of the State to Dr. F. T. Fuller for his long and efficient services to the unfortunates under our charge."

In his report for 1888, Dr. Grissom said: "Dr. F. T. Fuller, our First Assistant Physician, whose faithful services in the Institution extend through a period of over thirty years, and who has entitled himself to the gratitude of the people of the State by his fidelity and usefulness." This was very high praise, but was truly and well earned, and he was justly entitled to it. He was one of the most experienced, ablest and cultivated alienists in this country.

No man was ever more faithful and devoted to his work than he was. He loved the Institution and its inmates, and devoted his life to their welfare.

He was stricken down while in the discharge of this excellent, constant, devoted attention to the unfortunate under his care, and lived about thirty-six hours.

He was a member of the Medical Society of the State of North Carolina, of the Raleigh Academy of Medicine,

of the Association of Medical Superintendents of American Institutions for the Insane and of the Medico-Legal Society of New York. He had been a vestryman of Christ Church, Raleigh, for several years. He was a communicant in the Protestant Episcopal Church for years, dying in that faith, receiving the last prayers of the Church at the hands of his faithful and beloved rector, Rev. Dr. M. M. Marshall.

He was a true North Carolinian, intellectual, cultivated, learned, modest, unpretending, honorable and upright in everything.

Having served God and his people during his life, he was "gathered unto his fathers, having the testimony of a good conscience, in the communion of the Catholic Church, in the confidence of a certain faith, in the comfort of a reasonable, religious and holy hope."

P. E. HINES, A.M., M.D.

[The following preamble and resolutions were adopted by the Raleigh Academy of Medicine:]

RALEIGH ACADEMY OF MEDICINE,
September 24, 1894.

WHEREAS, Our Fellow in this Academy, Dr. Francis Taylor Fuller, First Assistant Physician in the North Carolina Insane Asylum, having been taken from among us and entered into rest, it is fit and proper that we should render our tribute to his worth and his virtues; therefore

Resolved, That in the death of Dr. Francis Taylor Fuller this Academy loses an able, honest and honorable member and our State one of her most devoted and faithful sons. A man who had devoted his life for more than thirty-eight years to the unfortunate of the State committed to his care; always mild, kind and gentle in all his dealings with his patients and their attendants, he won their respect and their love.

Resolved, That Dr. Fuller throughout his life set an example worthy of imitation in all his intercourse with others,

Am. Med. J. (65) 34: 193 #4, Oct, 1894

being just, fair and honorable in all things, devoted to the discharge of every duty, faithful in all things, skilled and learned in his specialty, modest, retiring and unpretending. He passed in and out among our people for more than a third of a century without fear and without reproach, respected and esteemed by all and beloved by many.

Resolved, That we deplore the loss of such a good, pure and useful man, and that we tender our sincere sympathy to his family in their affliction.

Resolved, That we wear the usual badge of mourning for thirty days.

Resolved, That a copy of these resolutions be sent to the family of the deceased by the Secretary, and that they be published in the NORTH CAROLINA MEDICAL JOURNAL and the daily papers of this city.

P. E. HINES, M.D.

W. I. ROYSTER, M.D.

K. P. BATTLE, M.D.

DR. OLIVER WENDELL HOLMES.

BOSTON, October 7.—Oliver Wendell Holmes is dead. Without the semblance of a struggle or a pain he passed, as he had lived, peacefully and beautifully.

The end came at 12:10 o'clock this afternoon at the venerable poet's town house, 296 Beacon street. He was surrounded by his children and visibly conscious of their presence up to within a few minutes of the last, though unable to speak. Then he closed his eyes wearily and seemed to fall asleep, as indeed he did—the sleep of death, at which the whole world will mourn.

Dr. Holmes came from his summer home at Beverly, ten days ago, and,

while not quite in his accustomed health at that time, did not regard himself as ill, nor was he so regarded by his children and friends. For several years he had been a sufferer from asthma, and the day after his return to Boston he had a particularly severe attack of this malady. It was the beginning of the end. Dr. Holmes never left his bed again, for, while the asthma was conquered, it left him in such a weakened condition that he never rallied. Dr. Charles F. Putnam told the sufferer a week ago that the end must soon come. Dr. Putnam had been the Holmes' family physician for years, and knew his patient well.

Oliver Wendell Holmes was born at Cambridge, Mass., August 29, 1809. He was graduated at Harvard College in 1829, and began the study of law, which he subsequently abandoned for that of medicine. Having attended the hospitals of Paris and other European cities, he commenced practice in Boston in 1836. In 1838 he was elected Professor of Anatomy and Physiology in Dartmouth College, and in 1847 was appointed to a similar professorship in the Massachusetts Medical School, from which he retired in 1882.

As early as 1836 his contributions in verse appeared in various periodicals, and his reputation as a poet was established by the delivery of a metrical essay entitled "Poetry," which was followed by others in rapid succession.

Reading Notices.

THIRTY YEARS' EXPERIENCE.—For 30 years I have used *Syrup of the Hypophosphites* and Churchill's Formula since its introduction to the American market

through Dr. McArthur. It is certainly one of the best, if not the *best*, I have known in the practice of medicine.

It is remarkable for the combination

of all the ingredients which are so well blended together in it and gives *satisfaction* to the *patient* and *success* to the *practitioner*.

HENRY E. WRIGHT, M.D.

Philadelphia, June 16, 1894.

THE AMERICAN DISEASE.—It is a remarkable fact that many of the most valuable discoveries in materia medica have been made by laymen, and not until after a lapse of years adopted by the scientific world. The marvelous stories told by travelers of the uses to which the leaf of the Erythroxylon Coca was put by the South American Indians, were received *cum grano salis* by the general reader and met with ridicule from the medical world, and not until recently was attention really fastened upon the "miraculous leaf," as it was called by early writers.

The fact that the Indian traveled for days carrying heavy burdens without food, being sustained by the leaf only, demonstrated its powers in sustaining vital energy and restraining tissue metamorphosis. This suggested its use in Phthisis and all forms of anæmia, in debility following fevers and after surgical operations. Coca has now taken its place as a reliable remedy in many conditions, such as sleeplessness, despondency and as a general and heart tonic and invigorator. Its property of strengthening the voice, due to its being a tensor of the vocal cord, makes it very useful for the singer and public speaker, and it is a reliable aphrodisiac without being irritating.

Ordinary Coca Wines have some value in promoting digestion due to their stimulating properties, but many of the wines on the market are improperly prepared or have too high a percentage of alcohol, which impairs the true therapeutic properties of the Coca. Among the latter preparations, one known as "Maltine with Coca Wine" has attracted our attention. The well-established reputation of maltine as a food and digestive agent, and as a vehicle was a guarantee that the combination of maltine with a carefully made Coca Wine prepared from fresh leaves and containing a small percentage of alcohol, would

prove a valuable acquisition to our list of elegant pharmaceuticals. When it is known that each ounce of Maltine with Coca Wine contains enough diastase to digest thirty ounces of starch at the bodily temperature and all the active principles of thirty grains of assayed Huanaco Coca leaves, its value will be readily admitted.

"The American Disease," an irritable heart combined with indigestion and nervousness, so common among our business men and almost universal among women of the upper classes, presents a problem of ever-varying embarrassment to the clinician. Alcoholics may mitigate the symptoms of this condition temporarily, but lead to disastrous results. To try to give relief with opiates is little less than homicidal. Maltine with Coca Wine is an ideal combination in these cases, not only on account of the Coca, but from the food and diastasic values of the maltine, and is not followed by habit symptoms, for when the condition is relieved the remedy is no longer needed and its withdrawal is not followed by depression. In this particular Coca differs from all other stimulants and narcotics.

A well-known writer happily characterizes the dual action of Maltine with Coca Wine in the following graphic manner: "The Coca boosts the patient and the Maltine furnishes the peg that prevents him from slipping back." Other tonics afford only temporary stimulation, with nothing to prevent the subsequent reaction.—*The National Medical Review*.

CHRONIC CYSTITIS; Sub-Involution of Uterus; Abortion; Stone and Cystitis; Enlarged Prostate.—R. W. Felkin, M.D., L.R.C.P., Edin., L.R.C.S., Edin., F.R.S.E., F.R.G.S., etc., etc., Alva St., Edinburgh, Scotland, says: "I have used *Sanmetto* extensively; indeed, on two occasions the chemists were out of stock. I may especially mention 3 cases of chronic cystitis, 3 cases of sub-involution of the uterus, 1 case of abortion, 1 case of stone and cystitis (unfavorable for operation) and 4 cases of enlarged prostate. I shall go on prescribing *Sanmetto* as occasion serves."

* * * * *

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" Mastic, $\frac{1}{2}$ grain. | M. ti. one pill.

Lady Webster Dinner Pills. This is an excellent combination officially designated as Aloes and Mastic. U. S. P. We take very great pleasure in asking physicians to prescribe them more liberally, as they are very excellent as an aperient for persons of full habit or gouty tendency when given in doses of one pill after dinner.

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(Dr. Fothergill.)

R.—Pulv. Ipecac., $\frac{1}{2}$ gr. | Strychnine.....1.20 gr.
Pulv. Pp. Nig. $\frac{1}{2}$ gr. | Ext. Gentian..... 1 gr.

The above combination is one of Dr. Fothergill's receipts for indigestion, and has been found very serviceable. In some forms of Dyspepsia it may be necessary to give a few doses, say one pill three times a day, of Warner's Pil. Anticonstipation.

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The dose of Iodide of Iron Pills is from one to two at meal times; is recommended and successfully used in the treatment of Pulmonary Pythibis or Consumption, Anæmia and Chlorosis, Caries and Scrofulous Abscesses, Loss of Appetite, Dyspepsia, etc.

In cases where Iodide of Iron is prescribed, it is absolutely necessary for the physician who relies on the therapeutic action for beneficial results that the compound should be perfectly protected, and so prepared as to remain unalterable.

With this important fact in view, we have devoted special study to Iodide of Iron in pillular form, and we are warranted in announcing that WARNER & CO.'S IODIDE OF IRON PILLS meet all requirements, being the most perfect preparation of the kind.

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—Ext. Sumbul.....1 gr. | Ferri Sulp. Ext..... 1 gr.
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This combination is very useful in relieving various forms of Dyspepsia and Indigestion, and will afford permanent benefit in cases of enfeebled digestion, where the gastric juices are not properly secreted.

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(WM. R. WARNER & CO.)

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PIL. ANTISEPTIC COMP.

(WM. R. WARNER & CO.)

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Sulphite Soda.....1 gr.
Salicylic Acid.....1 gr.
Ext. Nux. Vomica..... $\frac{1}{4}$ gr.
Powd. Capsicum.....1-10 gr.
Concentrated Pepsin.....1 gr.
Dose, 1 to 3 Pills.

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"SYRUP OF FIGS"

as a laxative is one or two teaspoonfuls given preferably before breakfast or at bed time. From one-half one tablespoonful acts as a purgative, and may be repeated in six hours if necessary.

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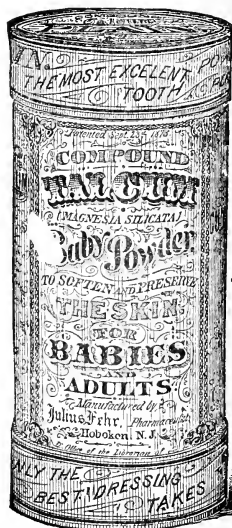
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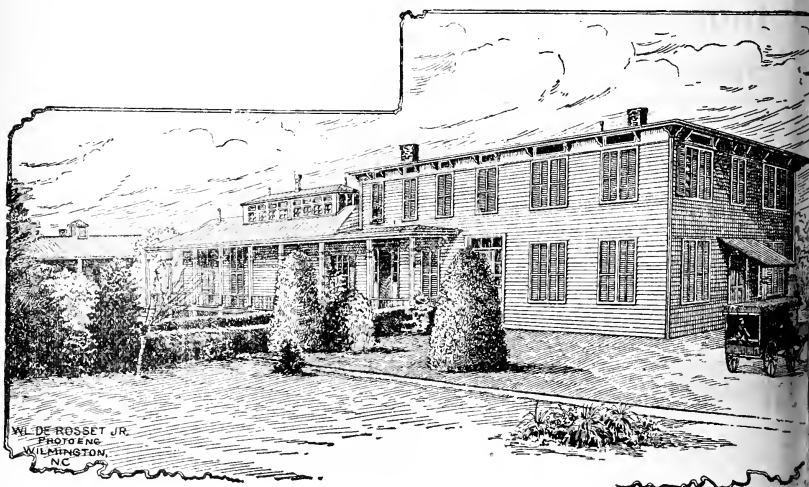
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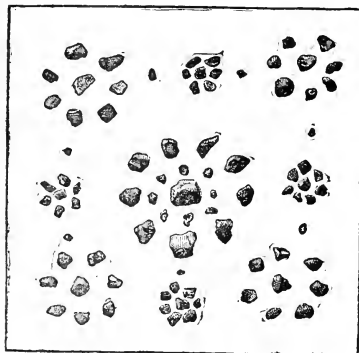


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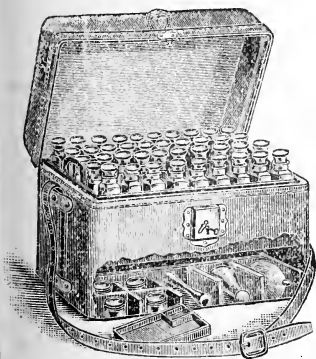
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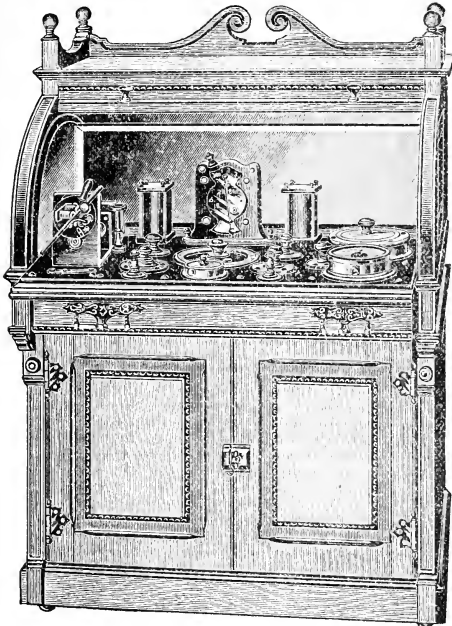
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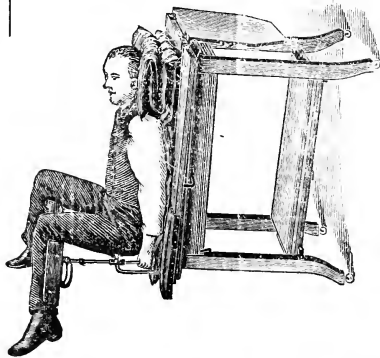
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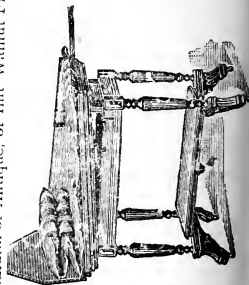
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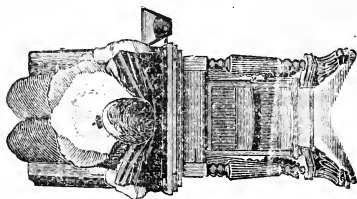
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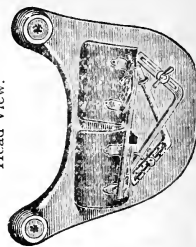
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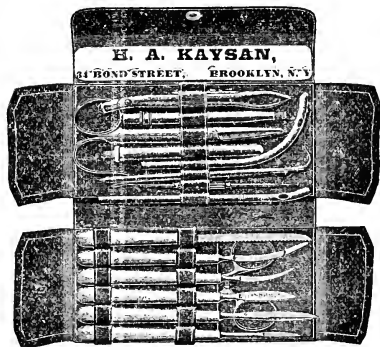
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Table of Contents.

Original Communications :

Some Recent Ideas in Surgery.— <i>R. H. Stancell, Jr., M. D.</i>	195
The Prevention and Cure of Perineal Lacerations.— <i>W. E. Fitch, M. D.</i> ...	205
Suggestions on the Prevention of Tuberculosis as We Know it To-Day.— <i>S. Westray Battle, M. D.</i>	212
Gangrene of the Lung, Followed by Pleuro-Pneumonia.— <i>E. B. Goelet, M. D.</i>	217
When is the Administration of Sulphate of Strychnine Contra-indicated During Gestation?— <i>T. Ridgway Barker, M. D.</i>	218
A Clinical Note on Glaucoma.— <i>Richard H. Lewis, M. D.</i>	220

Society Reports:

Seventh Annual Meeting of the American Association of Obstetricians and Gynecologists	223
---	-----

Editorial:

The Antitoxin Treatment of Diphtheria	230
American Academy of Railway Surgeons	232

Reviews and Book Notices :

Aseptic Surgical Technique.— <i>Robb</i>	232
A System of Genito-Urinary Diseases, Syphilology and Dermatology— <i>Morrow</i>	233
International Clinics— <i>Daland—Bruce—Finley</i>	233
Essentials of Diseases of the Eye, Nose and Throat.— <i>Jackson</i>	234
The Johns Hopkins Hospital Reports (Neurology)	234

Notes of Practice :

Gonorrhœa; Posterior Urethritis; Neuralgia; Forceps Deliveries; Suppurative Otitis Media; Intra-cranial Organic Disease; Aseptic Surgery; Diabetes Mellitus; Tobacco Habit; Blood Counting in Anæmia; Division of the Spermatie Cord for Enlarged Prostate.....	234
---	-----

Correspondence :

Treatment of Spider Bite	236
Alvarenga Prize.....	236

Obituary:

William Goodell, M. D.	236
-----------------------------	-----

Miscellaneous Items.....	237
--------------------------	-----

Reading Notices.....	242
----------------------	-----

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Index of Advertisers.

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Fairchild Bros. & Foster.....	Cover 1	University of Pennsylvania.....	14
Parke Davis & Co.....	" 1	Typewriter Headquarters.....	14
Cal. Fig Syrup Co.....	" 2	Angier Chemical Co.....	15
Mr. Fellow.....	" 3	University College of Medicine.....	15
The N. Y. Pharmacal Association.....	" 4	St. Luke's Home	15
W. H. Schieffelin & Co.....	1	Wilmington City Hospital.....	16
Battle Creek Sanitarium	2	Mariani & Co.....	17
H. A. Kaysan.....	2	Walker-Green Chemical Co.....	17
C. F. Boehringer & Soehne	3	Frederick Stearns & Co.	17
Sharp & Dohme.....	4	Thos. F. Goode	18
Henry K. Wampole & Co.....	5	N. Y. Pharmaceutical Co.....	19
M. J. Breitenbach Co.,	6	Bartlett, Garvens & Co.....	19
Virginia Pharmacal Co	7	Lambert Pharmacal Co.....	20
Cueen, & Co	8	Maltine Mfg. Co.....	21
McArthur Hypophosphite Co....	8	H. O. Hyatt, M. D	21
Antikamnia Chemical Co.....	8	Dios Chemical Co	22
Peacock Chemical Co—Sultan Drug Co...	9	McIntosh Battery Co.....	22
Chas. Marchand	10	Scott & Bowne.....	23
Wm. R. Warner & Co	11	Battle & Co	23
Kentucky School of Medicine	12	Rio Chemical Co	24
Bellevue Hospital Medical College	12	Seaboard Air Line ..	25
E. V. Richards	12	Daggett Table Co	26
Od Chemical Co	13	Listol Chemical Co ..	27
Julius Fehr, M. D.	13	Harris Lithia Water.....	23
University of North Carolina—Med Dept...	14	Terraline Co.....	29
Quaker City Baking Powder Co.....	14	Svapnia.....	30
North Carolina Medical College.....	14	C. N. Crittenton.....	30

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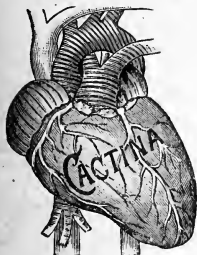
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No. 5.

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SOME RECENT IDEAS IN SURGERY.

By R. H. STANCELL, Jr., M.D., Margarettsville, N. C.

(Read before the North Carolina Medical Society, May 17, 1894.)

It must ever be a welcome task to the true physician—that is, to the physician who follows his art for his art's sake, to put forth his best efforts toward the proper accomplishment of any task which his seniors may set him to perform. And when a task, however difficult, falls to the lot of one so young in the cause as is your very humble servant, he must be a most unworthy follower of our common mistress who would not do his best to properly discharge the trust. So, gentlemen, while none of you can be more sensible of the shortcomings of the paper I have the honor of submitting to you as my report as Chairman of the Section on Surgery and Anatomy than I am, still I crave your kind indul-

gence for its faults, and can only assure you that its shortcomings are not due to lack of effort on the part of its author. I shall not, gentlemen, attempt to lay bare any new discoveries which I or any of my friends have made, nor shall I burden you with any theoretical compositions, nor propositions of my own, nor again shall I impose upon you reports of cases which I have cured, but I shall attempt to tell you briefly of some of the important advances made in the last year or two in surgery, and also to present a brief review of the most important thoughts and improvements suggested during the year. The gentlemen who are to follow me will elaborate on their various subjects, so I

shall pass briefly over my field and leave you to their tender mercies. I invite your attention first to the subject of

Abdominal Surgery.—The surgery of to-day is, one may almost say, of the abdomen. What was such a short while since a tract of country almost unexplored is now laid open freely and its contents "otomized," "orrappnized" and "ecto-mized" as occasion may demand without fear, and we may say without stint. The advances here have been almost miraculous. Fistulæ are made into the stomach and bowels, abscesses opened and cleaned, portions of liver and kidney removed, and exsections of portions of gut made as a matter of every day occurrence. Where so much material lies around loose it is hard to choose the best, but I first invite your attention to

A New Method of Intestinal Anastomosis.—Connell has devised a method of accomplishing this without plates and with only two knots. The cut ends of bowel having been closed, the subsequent steps are as follows: The closed ends are passed by each other and openings of desired length made in their convex borders. The opposing walls are then placed side by side, so that the incisions are parallel. A suspending thread or loop is run through the bowel at the end of each incision by passing the needle from within outward through the walls of each portion, and then both ends are brought up through the openings and tied. These suspending loops are entrusted to an assistant. When there is much tendency to eversion, or when the incisions are very long a third thread may be introduced midway between the other two. As the assistant makes traction upon these threads the opposing serous surfaces are brought into contact and the first sutures quickly inserted. This is of looped stitches made by introducing the needle at the

end of one incision from without inward, and then passing it back and forth through all the coats till the other end is reached. The needle is then passed from within outward back to the point of beginning, leaving each stitch as a loop on the side where taken. The walls are now separated as far as the looped stitches will allow, and the suspending threads drawn upon the other side; this brings serous surfaces of the opposing walls into apposition. A second set of sutures is then introduced like the first, except that they are drawn taut. The suspending threads are then withdrawn and the loops of the first suture drawn up. The ends of both sutures are drawn tight and tied, not cutting off the ends until both knots are made. Then the ends are cut close so as to leave no dangling drains, and union by anastomosis is complete.

The *Murphy button* is an appliance recently brought to our notice, the principle of which is sure to prove useful. It is severely criticised by many surgeons, among them being Professor Senn; but in spite of all this the principle, if not this particular adaptation of it, has come to stay. It consists of two hollow metallic cup-shaped hemispheres with a stem and a central perforation in each one. When clamped together these hollow stems telescope, forming a smooth round button. It is used for the purpose of making anastomoses wherever desired. In performing an anastomosis with it the openings in bowel are enclosed in a purse-string suture, which is tied around the stem of one-half of the button. One half is thus tied in each incision, and they are clamped together. This brings serous coats into perfect apposition and adhesions form around the button quickly; meantime, according to the author, a pressure atrophy of the clamped parts takes place and the button

is released and passes out through the intestine. Senn claims that it is gangrene, and not atrophy, which releases the button, and holds that the procedure is in consequence not safe. It is already conceded to be the most practicable device for performing cholecystenterostomy in the least time, and it is also claimed that it will find a field in the end to end anastomoses, gastrostomies and gastroenterostomies and in the closure of fecal fistulæ. The strongest argument in its favor is that it makes these long and tedious operations easy, short and comparatively safe. Dr. Murphy reports 17 cases of cholecystenterostomy, all of which recovered as against a former mortality of 35 per cent.

Appendicitis.—As most of you know, gentlemen, this affection is, so to speak, all the rage—so much so that a great many things which were formerly regarded as separate maladies—volvulus and other obstructions—have come to be called appendicitis. Of the real appendicitis one form is known as recurring; that is, there are repeated attacks followed by intermissions. In such cases abscesses repeatedly form and discharge through the appendix into the bowel. Such cases should be operated upon during an intermission. The operation is indicated because there is no knowing when the pus may go somewhere else.

Intestinal Sutures.—Perhaps nothing is more annoying to a surgeon than his first attempt to suture intestine. The fold of gut persists in slipping away from the fingers, or perhaps, if it be firmly held, the needle either goes through all the coats or else does not go deep enough, and the result is unsatisfactory. There is no saying at what time any practitioner may be called upon to sew a torn or cut bowel, and every one should familiarize himself with the

manipulation of it by experiments upon the intestines of animals.

The Lembert suture is the most commonly employed in the closure of transverse tears or cuts in bowel. To insert it the needle enters the serous coat at a quarter of an inch from the margin of the wound, goes down to the sub-mucous coat, and emerges again at a point half way between its insertion and the wound. The needle is then passed across the cut and the same steps taken on the other side. When tied this suture brings serous surfaces into apposition.

The Curtis rectangular suture is used in cuts in the long axis of the bowel. It is a continued suture in which the thread changes its direction at a right angle at every turn. The thread is passed through a fold of membrane at one end of the wound, and then made to travel in the sub-mucous tissue to the point where the first stitch is to be made; here it emerges, crosses the wound and again goes down to the sub-mucous coat. There it turns and goes parallel with the gut till it emerges to cross again. When the entire length of the wound has been traversed and the thread is drawn taut, the edges will fold in and serous surfaces be brought into apposition.

Surgery of the Kidney.—Operations upon this organ are now of frequent occurrence. It has been demonstrated that it is the easiest and safest of all the abdominal organs to remove or to handle. The anatomist tells us that the kidneys, two in number, are situated in the back part of the abdomen, placed in the loins, one on either side of the spine. They are placed behind the peritonæum and surrounded by a mass of fat and areolar tissue, their upper border is on a level with the twelfth dorsal vertebra, their lowest extremity level with the third lumbar. Relations:

The diaphragm and the fascia over the quadratus lumborum and psoas magnus muscles. These expressions were read in Gray a long time before it occurred to any one that between the skin and kidney there is nothing which may not be safely cut. So, when a diagnosis of stone, abscess, dilatation or floating kidney can be made out, it is proper to cut down upon the organ and either extirpate it or set it to rights. Hemorrhage in cut kidney or cut liver is profuse, but easily checked by pressure.

Amputations—Senn's Bloodless Method of Hip-Joint Amputation.—The external incision is that of Langenbeck for resection, eight inches in length, directly over the great trochanter, beginning at a point three inches above it. All vessels which bleed are tied. The trochanteric attachments are then severed close to the bone, the digital fossa cleared and the tendon of the obdurator externus cut. The thigh is flexed, adducted and rotated inward and the capsular ligament cut at its upper and posterior aspect. The rest of the capsule is severed with the leg in slight flexion. The femur is now dislocated, the head of it cleared and pushed through the opening far enough to make a low amputation. So far there has been no bleeding if the knife has been carefully used. At level of the lesser trochanter a strong forceps is pushed through the tissues just behind the adductors, when it reaches the skin that is cut through and the tunnel enlarged by opening the forceps and pushing them backwards and forwards. A piece of $\frac{3}{4}$ inch rubber tube is now doubled, siezed in the middle by the forceps and drawn through the wound. It is then cut in half, the limb rendered bloodless and the anterior segment constricted by tying half of the tube around it. The other piece of tube is tied behind, brought over to

the front and tied again. Muscular flaps are to be avoided. The anterior flap goes down to muscle, begins at the lower end of the straight incision, goes downward across the thigh and ends near the incision holding the constrictors. The posterior flap is one-third shorter. The muscles are divided by the circular incision slightly concave. The sciatic nerve should be resected to the extent of an inch and the arteries tied with catgut. The femoral vein and artery are both included in a second ligature half an inch above the first one. These double ligatures are safe procedures in all large arteries. While the posterior constrictor is removed a hot gauze compress is placed on the posterior half of the wound and firm pressure made. This checks oozing. When the compress is removed all bleeding vessels are tied. The anterior half is treated in the same manner. These constrictors enabled Senn to do this operation with a loss of less than one ounce of blood. It requires no skilled assistant and can be done with a pocket case.

Wyeth has described at full length his method of doing the same operation. It differs from Senn's in that he transfixes the limb high up with two large skewers, above which the tubing is tightly tied. He makes a circular incision at the middle of the upper third and a cut up the side to the great trochanter.

Anæsthetics.—No question has stronger claims upon the attention of the surgeon of to-day than this one. The rapid progress of surgery, which has opened so many new fields of work in the past few years, would be at a stand-still without their use. Without a good anæsthetic, fearlessly administered, the surgeon's hands are tied and he is powerless. These useful agents, which in this way do so much good, are equally as

powerful for harm. Upon their proper administration depends every operator's success. Since the death, last year, under ether, of a prominent man, the journals have been full of all sorts of conjectures, statistics and reports concerning the best anæsthetic and the best and safest mode of administering it, and, after a year of this discussion, we are in the same profound state of knowledge in which we were before. It is a practitioner's duty to give an anæsthetic whenever he thinks he can operate or diagnose better with its help. The statisticians claim that ether is safest of all. A death is reported from the use of ethyl bromide in Bilroth's clinic. This is as dangerous as chloroform and no better than nitrous oxide.

Konig claims that no patient should die from respiratory failure under chloroform, but that sometimes heart-failure cannot be prevented. He counteracts it by strong rythmical blows over the heart. Occasionally, after a long time, the pulse will be isochranous with the blows.

Von Barbledon states that since 1848 he has used chloroform in a thousand cases annually without a fatal case. The distinguished Dr. Chisolm, of Baltimore, whom we are glad to see present, has used it over thirty thousand times without a fatal result. Ether is very nauseating and depressing in its after-effects; so much so that the quick recovery from chloroform narcosis must make it the favorite when it is safe. I have several times given chloroform in my office and had the patient ride to his home in two hours or so afterwards. I never saw a patient recover from ether effects in less than eight or ten hours. In head and neck operations, too, ether is likely to infect the wound. It is also likely to explode if lights are not carefully watched.

Porter, of New York, wrote quite a long article in the July *Post-Graduate* upon the condition of the urine in regard to anæsthesia. He concludes: that ether and chloroform act upon the same principle, but with results developed by slightly different methods; that both are capable of producing death at the time of anæsthesia—chloroform more frequently than ether; that ether causes as many deaths as chloroform, if not more, but the fatal issue is delayed till the patient is removed from the table; that, by careful study of the density of the urine and its causes, we have positive information as to the nutritive condition of the system, and are thus forewarned. It also enables us to judge which anæsthetic is best adapted to the individual case. We are taught that neither ether nor chloroform should be given till the glandular organs are put in the best possible condition to withstand the extra strain. When this is a general rule many cases which now prove fatal will be saved. While in some cases it is clear that death is directly due to the effects of chloroform or ether, this fact should not deter us from using them, but on the contrary, should stimulate us to be more thoroughly masters of their action upon the system, and to guard against their ill effects. When all this is accomplished, chloroform will most probably be the favorite anæsthetic. The *London Lancet* has had a commission during 1893 to examine and report upon chloroform. Its report, after the usual preliminaries regarding care in its administration, winds up as follows: "If no other purpose were served by our report than to direct attention to the really small death-rate under anæsthetics properly administered, our labor would not have been thrown away; but we believe that very much more will follow, and it is, we hope, not too much to say

that when the clinical and physiological aspects of the question can be carefully prepared, and when those who support the views appropriate to each school of thought can together trace the teachings of the two sets of facts, we may at length arrive within measurable distance of a solution of what is perhaps the most important question of modern surgery.

Bladder and Urethra.—Gonorrhœa.

—The time-worn subject of gonorrhœa has received its usual voluminous quota of discussion during the year. Saalfeld now classes it with the eruptive fevers in the sense that it is an affection from which few adult males have been spared. He also announces the newly-discovered fact that the therapy of the affection is but little understood, and calls the attention of the profession to the fact that dancing, riding and other violent exercises are injurious during the inflammatory stage. He recommends the wearing of the suspensory bandage during the day and linen wrappings at night. He says that cheese excites erections and prohibits it. Camphor, lupulin and antipyrine with bromide of potassium are recommended in painful erection. . . . Local treatment consists in oft-repeated local washing in warm water. Injections of 1 p. c. solutions of thallin, of sulpho-carbolate of zinc, zinc sulphate and lead acetate and others, too numerous to mention, salol, oil of santal, copaiba and cubeb, can be given by the mouth. His therapeutics is better than his classifications, for the above methods are mostly in vogue in its treatment.

Janet proposes the following mode of aborting gonorrhœa. He first washes the prepuce and glans carefully, and then irrigates the urethra in its entire length, as well as fills the bladder with a solution of potassium permanganate, varying its strength from 1000 to 1-4000,

according to the degree of inflammation. After the washing the patient is directed to change his linen and again wash the glans and prepuce carefully with a solution of 1-200 potassium permanganate. The more acute the inflammation the oftener should the irrigation be repeated. In the first few hours after the irrigation there is a whitish secretion followed by clear serum, sometimes slightly bloody, then absence of secretion, after which the purulent discharge reappears. The irrigations should succeed each other just often enough to prevent the recurrence of the discharge. Usually twelve or fifteen irrigations will be sufficient to abort the disease. If so, there is no discharge unless the solution has been too strong. If the disease recurs another course of irrigation is administered, and if there still be discharge a weak solution of silver nitrate, 1-2000, is employed in the anterior urethra. The drug causes slight œdema of the urethra, which change in their culture ground so affects the gonococci that they cease to grow, and if the condition is maintained the destruction of the germs is sure. Discharge almost ceases from the first and 80 p. c. are cured. The objection to the treatment is that it is troublesome both to the surgeon and patient.

Schmidt, on the basis of a single case suggests that the curative effect claimed for erysipelas in the case of certain malignant growths and of ulcerating gummata may also obtain in gonorrhœa. A young girl with gonorrhœa, which was known to be gonorrhœa by the presence of gonococci in the discharge erysipelas developed on the upper third of the thigh, and in two days the gonorrhœa had entirely disappeared. There was no return of the discharge two months later. What do you think of that?

A New Method of Treating Hypertrophical Prostate.—In a comprehensive study of the present position of the surgery of the hypertrophical prostate, J. William White proposes the removal of the testicles as a possible means of causing involution of prostatic overgrowth. From a series of experiments on dogs he claims that castration is invariably followed by atrophy, first of the glandular, and then of the muscular elements of the prostate, and that there was consequently a coincident reduction of both bulk and weight.

Griffith obtained similar results and cited post-mortems which showed that in man castration exerted a powerful influence on the nutrition of the prostate. He quotes Hunter, who observed that the gland in a bull was soft and bulky, while in a steer it was hard and ligamentous. Griffith made autopsies on two dogs and two cats which had been castrated years before. In all these animals the gland had been transformed into a mass of fibrous connective tissue containing the remnants of gland tubules and a few atrophied muscle fibres. As to the employment of the operation as a therapeutic procedure, the final answer is of course with the patient. The proposition to thus treat the disease is startling, though quite as reasonable as ovariectomy for uterine fibroids. White states that if equivalent results were promised there would be no lack of patients willing, for the sake of relief from their untold sufferings, to undergo the operation and to sacrifice that little sexual power remained to them.

Coole calls attention to the difficulty of effectually draining the bladder after supra-pubic cystotomy. In a majority of these cases the lining membrane of the bladder is in a state of chronic inflammation, suture is contraindicated,

and the wounds in both the abdominal wall and bladder must be left open. He uses an ordinary glass drainage tube packed with a wick of gauze. The free end of the gauze, some three feet long, is carried through a rubber tube to a bottle beneath the bed.

Bones and Joints.—Bier calls attention to the treatment of tubercle in the bones and joints by means of passive hyperæmia induced by rendering the limb bloodless and applying a constricting band just above the tubercular swelling. This is kept up for months and good results and even cures are reported from its employment. Bier believes that it cures by causing fibrous tissue formation around the seat of the disease, while Heller advances the theory that the constriction keeps the excreta of the bacilli from being disseminated until they acquired sufficient concentration to kill the bacilli themselves. It is probable that good will come of this treatment. Senn treats intra-capsular fractures of the neck of the femur by means of a dressing which aims to produce artificial impaction or a position closely approximating it. The thighs are fixed on the pelvis with a plaster case provided with a pad which can be screwed against the great trochanter as the cast gets loose. Post-mortems have proven that several cases treated in this way have gotten good union. The only trouble will be to diagnose a fracture which is entirely intra-capsular, since entirely different treatment is indicated if the fracture extends outside the capsule. He also makes an earnest plea for more frequent recourse to direct fixation of fragments in compound and ununited fractures. He claims this is indicated in all compound fractures which do not unite by ordinary treatment, and in all ununited fractures which require operative inter-

ference. It is also justifiable in certain forms of subcutaneous fracture where reduction and retention are not easily secured. Free exposure of the fragments in compound fractures secures the most favorable condition for thorough disinfection. Perfect reduction and direct fixation are the most reliable prophylactic measures against delayed union, non-union and deformity. A compound fracture should be regarded as an injury to soft parts and treated on the same principles. Fractures not requiring drainage should be closed. The mainstay of the treatment is the external splint, which should be so applied as not to require changing.

Mouks describes a very ingenious and simple method of treating fractures the deformity of which shows an inveterate tendency to recur. This consists in applying a light dressing of plaster and then moulding the bones into proper position by digital pressure and traction, the former being applied on the outside of the dressing. The bones are held in place by pressure until the plaster hardens. When it is firmly set there is no further tendency of the bones to slip out of place.

Operation for Subluxations of the Elbow.—Tilloux operated on a case five months after injury. The joint was freely exposed by a lateral incision. He found a growth of osteophytes interfering, which he cut away. The articular surfaces were resected, the cut triceps stitched and the arm dressed in a moulded splint. Good result. Quem in a similar case resected, but with a poor result. Berger advocates complete resections.

Brain.—Adam Kiewicz claims that the various antiseptic solutions exert a harmful influence on the brain when used in the treatment of wounds of that organ. Solutions of carbolic and boric

acids were injected into the brains of animals with a Pravaz syringe and various disturbances were produced, and in most of the experiments the animals died. There is always danger of producing a meningitis after the use of aseptic solutions. At the same time no bad results have been reported after the use of sublimate or carbolic acid.

Bubo.—Otis treated 16 cases of suppurative bubo as follows: The skin was cleaned with green soap, a small opening made with a bistoury and the pus evacuated. The cavity was irrigated with bichloride, 1-1000, and packed with 10 p. c. of iodoform ointment introduced through a syringe. A compress of bichloride was the dressing, held in place with a bandage. The wound was given the same treatment on the fourth day. The advantages of this method are, it is simple and safe and it is the quickest way to cure. The patient is able to go about during treatment. The first gland being aseptic, it is less likely to affect others in the chain. It leaves no tell-tale sore and it does not interfere with subsequent operations. In Otis' 16 cases 9 were cured in six days, 3 in twelve days, 1 in fourteen days, 1 in twenty-three days and 2 deserted during treatment. This method is worthy of a trial.

Wielander tried to abort buboes by injecting benzoate of mercury into them. He was successful in 87 p. c. of the cases he treated. He used benzoate of mercury, grm. 1, sodium chloride, grm. 30 water, grm. 100.; inject 1 c.c. and apply a compress. The injections were followed by swelling, but resorption took place in about three weeks. One injection was usually sufficient, but twelve were made in one case in eight days. I tried it in one case and failed.

Richter has employed injections of this drug in 30 cases of bubo. In 20

them swelling of the joints resulted. In 14 cases, where there was no fluctuation, it resulted after injection. In 13 cases, where already present, it was increased. Disappearance of fluctuation with absorption resulted in only 3 cases. As fluctuation increased after every injection puncture was made, the puncture was kept open with a strip of gauze and daily irrigation of sublimate made. Twenty-five cases of the 30 were cured, the average being in twenty-seven days. In 12 cases the injections were repeated.

Cancer.—Coley has collected a table of 38 cases of cancer in which erysipelas occurred accidentally and with intent—accidentally in 23 and inoculated in 15, 17 had sarcoma, 17 carcinoma and the other 4 not stated. Of the carcinomata 3 were permanently cured, 1 was well five years after the inoculation. Of the other 13, 10 showed marked improvement, which, although temporary, undoubtedly prolonged life. One case died from the erysipelas and the rest showed improvement. He injected fluid cultures deeply into the tumors. There was a marked reaction, the temperature often going to 105°. The effect is more marked on sarcoma than on carcinoma, but in all cases the tumor decreased in size and ceased growing. The toxic product of the germ is thought to produce the curative effect rather than the germ itself. The author concludes that the curative effect of erysipelas upon malignant growths is an established fact. That the treatment may be employed in inoperable tumors without great risk, and that the curative action is systematic and due to the products of streptococci, which may be isolated and used without producing erysipelas.

This treatment should not be much employed till further facts are proven concerning its safety. If the statements of the author be true, we would at last

seem to be on the road to overcome the cancer scourge, which is as terrible to the surgeon as phthisis pulmonalis is to the physician.

Adamkiewicz states that there can be no doubt but that cancer is due to a micro-organism. The parasite, though not positively identified, is a protozoa. It is well known that every organism perishes if saturated with its own products of elimination; hence cancer can be destroyed by the ptomaine developed as the result of its activity.

The ptomaine has been termed cancerine by the above-mentioned long-named surgeon, and is analogous to the cadaveric neurine composition, $C_5H_{13}NO$. If this be injected into a man with a cancer, say of the lower lip, the lip swells, the tumor suppurates, and if the injections are systematically continued the tumor disappears. Corresponding with this the glands decrease in size. It is certain that neurine acts directly on cancerous tissue.

Bernhart has employed salicylic acid in the treatment of new epithelial formations with good results. He injected a solution of 6 p. c. acid in 6 p. c. alcohol into the tumor in 6 cases, all of which recovered or were markedly improved. About 2 c.c. was the quantity used and it was followed by febrile reaction.

Hydrocele.—Dr. Joseph W. Hearne treats some cases of hydrocele in the following radical manner: Freeze the line of incision at the most dependent part of the sac, use the chloride of ethyl for freezing, cut into and empty the sac and thoroughly dry it out with sterilized cotton. The sac is then mopped out with pure carbolic acid and an iodoform gauze plug introduced and left in forty-eight hours. Sac and skin are closed with catgut sutures to within $\frac{1}{2}$ inch of the lower angle. Dress with gauze. Use

strictest aseptics. It is adapted to thin-walled sacs.

Guillot has had something to say in the journals concerning the practicability of the operation of orchidopexy, which consists in placing undescended testicles in their proper place in the scrotum. The testicle being freed from its attachments in the canal or in the abdominal cavity is anchored in the scrotum, being invested in a tunica vaginalis specially made for it out of the parietal layer of the peritoneum. In the case of a boy 15 years old the testicle grew to normal size and the boy ejaculated semen containing healthy spermatozoa.

Rectal Surgery.—Quenne's operation for piles, a new method of procedure, is a modification of Whitehead's operation. He holds that the other method is open to objection on the ground that coaptation of the raw surfaces is difficult, that if the bowels move within six or seven days there is danger of a bad result, and that if union is not complete at every point there results a cicatrix exceedingly liable to ulceration. He simplifies by making an incision half way round the anus at a point a little without the cutaneous border. He then dissects up this flap and cuts away all the tissues except the mucous membrane. After controlling the bleeding he stitches this flap back and repeats the operation on the other half of the gut. The rectum is packed with iodoform cotton to keep the membrane against the gut-wall, and the sutures removed on the fifth or sixth day. There is no traction on the suture, the membrane is left entire and does not contract. Fecal evacuation will not tear them loose and asepsis can be observed.

Biclaire proposes another new method for the treatment of hæmorrhoids, which, although he has not put it into actual practice, is yet sufficiently inge-

nious to be worthy of a trial. He claims that if the sub-mucous tissue be removed from the bowel and the mucous membrane made to unite directly with the muscular coat, that the condition favorable for the formation of hæmorrhoid will be removed and that a radical cure must result. He would simply dissect the mucous membrane up to a point above the origin of the swollen veins, and then he would stitch it back into its place again. He holds that from this union there would be enough cicatricial tissue to cure the trouble by shutting off the veins when it contracts. When the knife is contraindicated he would use the galvano cautery. This, when dry, will prevent such bad effects. The hot electrode then is introduced at various points near the anus, and carried beneath the mucous membrane up to the upper sphincter. This, of course, would cause cicatrices to form and draw the mucous membrane close enough to the muscular coat to prevent the veins remaining any longer dilated.

This method may be practicable if the mucous membrane be not burned, cut or torn, but any procedure which causes a cicatrix to form in the rectal mucous membrane is not good surgery, because there is danger of inducing stricture of the rectum.

Surgery of the Spine.—Delorme reports two cases of spinal operation. The first was for hemiplegia. There had been kyphosis and progressive paralysis for eleven months. The patient had lost control of both bladder and rectum; laminectomy was done and local pachy-meningitis was found. A bone abscess between the cord and the vertebra was opened and curetted. In twenty-four hours sensation returned to the lower extremities and also control of both the bladder and rectum. This case recovered.

The second case had acute paraplegia, with intermittent contractions of the right arm; laminectomy of the eighth, ninth, tenth and eleventh dorsal vertebræ was done. Extensive meningitis was present and fungus growths removed. The dura was scraped. The patient died very promptly, and autopsy revealed meningeal myelitis with extensive cerebral and cardiac lesions.

I have only briefly touched upon some of the most important ideas recently advanced, it being impossible in a short paper to do anything like justice to so broad a subject. Then, too, I have tried to consume as little time as possible in order to give way to the gentlemen who are following me and have kindly consented to prepare papers in this section.

THE PREVENTION AND CURE OF PERINEAL LACERATIONS.

By W. E. FITCH, M.D., Durham, N. C.

(Read before the North Carolina Medical Society, May 17, 1894.)

PREVENTION.

The very great variety of opinion as to the best mode of preventing perineal lacerations sets forth the necessity for closer, careful study and fuller discussion of the subject. The methods of cure are the result of recent investigations and progress, chiefly in the domains of surgery and pathology.

I have nothing new to offer, only a short resumé of the subject, which may elicit from this Society the experience of valuable opinion.

One of the most delicate, as well as the most responsible, duties which devolve upon the accoucheur is the regulation of the exit of the child's head and the careful management of the mother's perineum.

The history of perineal lacerations proves that they occur in the experience of every practitioner of obstetrics, however skillful he may be, and the physician who tells you he never had a laceration to occur in his practice is guilty of a patent dishonesty. Such statements place the honest physician in a

false light with his clientele. If such *ruptures* are not found after delivery in the experience of certain *doctors*, it is because they are not looked for. Perineal lacerations have occurred at the hands of the very best obstetricians. But it is an undisputed fact that they occur most frequently in the hands of the unskilled, and that a large percentage of such cases are avoidable, and that many others, by prompt and well-directed assistance, may be limited in their extent. Professor Parvin says ruptures occur in from 20 to 30 p. c. of primiparæ and in from 5 to 10 p. c. of multiparæ. Schroder found that lacerations occurred in 38 p. c. of all cases delivered in the dorsal decubitus and 25 p. c. in all other positions.

There is no doubt but that with care and skill the frequency of these lacerations may be reduced from 5 to 10 p. c. Therefore it would seem to be the duty of every obstetrician to pay particular attention to this subject and pay closer attention to the means of preventing these lacerations, especially those occur-

ring in primiparæ in whom they are most common and their result most disastrous. There is no escape from the responsibility of a large percentage of the ill results in these cases. It will not suffice to throw the onus on the physician of limited experience. He is not entrusted with a large percentage of labor cases.

We all know how hard it is for any obstetrician, and more especially the novice in this art, to do the best thing, at the best time and in the best way. When the head is down on the perineum, especially when it is a primipara and a large head to pass the maternal parts, the patient and her friends in phrensied excitement, at this critical juncture the young physician has some advantages to offer against his lack of experience—he is fresh from college, where he has had advantages of consulting the best authorities, and if he has not acquired confidence, he is at least painfully aware of the dangers before him. To the older members of our fraternity we must look for accountability.

I fear that there are some, but I hope not many, who hug the delusion that these occurrences are wholly unavoidable, that but little mischief occurs from them when they do happen, or that even the perineum takes care of itself. As far back as the days of Avicenna, nine hundred years ago, was taught the dangers of not caring for the perineum. There is yet a wide divergence of opinion as to what is meant by "supporting the perineum." Galabin says it was formerly taught to press with the palm of the hand upon the perineum, when stretched over the advancing head, and so check that advance. But such pressure on the perineum will actually tend to increase the uterine action, and when pains are violent may actually bring about the accident you so much

desire to avoid. In other cases the prolonged pressure has caused quite an unnecessary delay in the labor.

The opponents of "perineal support" embrace many obstetricians of eminence among them—Lieshman, Hewitt, Playfair and others—who propose to substitute the term "relaxation of the perineum" for "perineal support." Goodell suggests that two fingers of the left hand be inserted into the rectum, with the thumb of the same hand pressing against the advancing head, and with the fingers hook up and pull forward the perineum over the advancing head toward the pubis. He claims that by drawing the perineum forward he relieves the strain on the thinned border and promotes elasticity of the tissues. Prof. Lusk says that in cases of rigidity he alternately draws the chin downward through the rectum and allows it to recede. He has seen the most obstinate resistance overcome by this to-and-fro movement, and the soft parts become softer, yielding and distensible. Dupaul places two fingers of the left hand over that portion of the child's head which correspond's with the anterior commissure of the vulvæ and the two fingers of the right hand on that portion which corresponds with the posterior commissure, and thus counterbalances the uterine contractions, giving the vulvæ time to gradually dilate; the head is gently directed upwards against the pubis, which aids deflexion, and in this way the strain on the posterior commissure is relieved. Dr. Reamy has his patient lie across the bed with her hips close to the edge, her legs flexed on her thighs and thighs on abdomen, a strip of strong jeans cloth is so applied that its upper margin comes on a level with the fourchette; traction is now made by assistants at either end, as the accoucheur may direct, causing pressure on the

perineum. Prof. Engleman advocates the semi-recumbent position as the best in ordinary cases, and thinks there is a certain amount of support gained in this position.

I might add many other substitutes for the plan of supporting the perineum, by men eminent in the profession, but I will spare you that infliction.

The great diversity of opinion and the want of statistical proof by the upholders of "perineal relaxation," on the one hand, and the great weight of acknowledged authority, together with my personal experience in a Maternité Hospital when a student, and my private practice on the other, cause me to cling to "perineal support."

Nægele, Matthews, Duncan and others think that relaxation gives no better results than other methods. Dr. Thos. Opir says "perineal support" is not likely to be abandoned, nor does he think it will be replaced by hip bandages or rectal expression.

The following is the plan I usually pursue in nearly every case of labor I attend: At the close of the *second* stage of labor I begin to "support the perineum." When the labia are gaping and the head commences to engage in the dilating ring of the soft parts, the support is given while the pain is on, and remitted during the intervals, so that the circulation may be restored. The patient is put in the dorsal position. Sitting at her right side and facing her, my right hand is applied over the perineum, making for it a second supporting layer, the thumb and index-finger and the intervening web encircle the head, supporting the substratum and widening the extension of the occiput.

By a well-directed pressure upward and forward it is claimed that the perineum can be pressed forward and the strain on the thin margin in a measure

relieved. I do not think this of practical value. If the powers of the uterus are unduly strong and propulsion so rapid as to threaten a laceration, I use my left hand over the right thigh of the patient in co-operation with the right hand, to retard the rapid progress of the head. If delay is imperative, I place the ends of all the fingers of my left hand, arranged in a cone, on the occiput and restrain it. Without changing the position of the body the right hand may be reversed, the fingers used as the support, the thumb acting with the left hand to check the rapid advance of the head.

The primary cause of most lacerations is not so much the undilatability of the perineum as the excessive uterine propulsion. Chloroform, however, is the remedy par excellence to regulate the too rapid dilatation of the soft parts, but it must be pushed to relaxation, or it will have a contrary effect to what is expected. Every one who has used it much in labor must have noticed that the uterine contractions are increased in severity and efficiency under partial anesthesia, so as to get the good results you so much wish for, it must be pushed to complete relaxation of the soft parts. It is always best in forceps operation, especially in primiparæ, to withdraw the forceps when the head is on the perineum, and leave the natural powers to finish the delivery. If, however, the pains threaten to expel the child too precipitately, I hinder the passage with my forceps still in position.

All physicians who favor anal gymnastics to relax the perineum would find great solace in the substitution of chloroform. I never use a napkin in making "perineal support." The relationship of my hand to the underlying perineum is such that I can recognize at the moment it begins even the smallest tear.

I do not use force of an aggressive nature to check the advancing head, which force might, by reflex action, spur up the uterus to greater activity and cause the labor to be hurried up. The arched surface of the palm of my hand fits so nicely over the convex surface of the child's head, and the diverging thumb and finger are faultless and wonderfully adapted to their position and use in perineal support.

Sitting facing my patient, who is on her back, I can detect and control her straining, I can exhort, assure and encourage her best, and, should chloroform be used, this is by far the best position. As soon as the head begins to pass out the skillful accoucheur, who has been in watchful expectancy, uses his hands with accuracy and expedition to guide the advancing head upwards and forwards along the line which is a continuation of the axis of the obstetric canal. Support must not yet cease; it must still be persistently kept up, else the shoulders, after antero-posterior rotation will, by abrupt impingement against the fourchette, cause the dreaded laceration. The head must be carried well up against the mons, while the posterior or both shoulders are escaping.

I repeat that, whether the French position (on the back) or the English position (on the left side) be adopted, there is the same necessity for painstaking, rational support of the perineum. When the expulsive stage is well advanced and the head is at the crowning should my patient desire to be turned on her side, I always allow it.

Episiotomy has been advised when laceration seemed inevitable. The incisions usually are made laterally about $\frac{1}{2}$ an inch from the median line. They are by no means certain as a prevention. Sometimes in making them you cut the duct of the vulvo-vaginal canal, which

will result in a fistula. Every obstetrician knows how almost impossible it seems, in a goodly number of cases, for the perineum to stand the agonizing strain and stretching and at last get off safely. The operation of episiotomy certainly gives the mother a chance for a wound when one might not occur, especially if chloroform be used. It therefore puts the patient under additional risks of septic infection.

Before leaving the question of preventing lacerations allow me to say that, in my judgment, forceps operation are a more prolific cause of these troubles than is generally acknowledged. Many severe lacerations of the cervix uteri demanding trachelorrhaphy and lacerations of the perineum calling for perineorrhaphy are found to follow the use of forceps, especially in primiparæ.

I am anxiously waiting for the more complete statistics on the subject of episiotomy, the decubitus of the parturient woman and the use of obstetric forceps as bearing on "perineal lacerations."

CURE.

There are but few men in our profession to-day who, after reading the recent works on gynecology and obstetrics, could determine that perineorrhaphy was an unjustifiable operation. The gynecologist, however, is a witness to great neglect in the non-performance of primary perineorrhaphy and to the numerous and grave ills to woman, which are the consequence. Some authorities speak of placing the woman on her side and binding her knees together as a cure for slight lacerations.

Dr. Charpinter says it is best to postpone the operation until after the period of involution, thinking that it materially interferes with the recovery.

Wounds of the genitalia following

confinement differ from other wounds. In the former there is a constant drain of decomposing lochia from the involuting uterus, to say nothing of the weakened condition of the woman. It is a fact undisputed that septic absorption is chiefly through the lymphatics. The vaginal mucous membrane has but little absorptive power, but when deeper tissues are exposed, as in deep lacerations, the lymphatics are open from within (the autogenic form of sepsis), but to impressions from without, from a germ-laden atmosphere (the heterogenic form). It is the second duty of every physician, as soon as the secundines are delivered, to carefully examine the perineum by placing the index-finger in the rectum and the thumb in the vagina, then you can readily feel any laceration that has occurred, to know whether it is deep or superficial, straight and clean, or angular and shreddy—whether it is complete or partial. If your sense of touch indicates the slightest tear, a thorough visual examination should be made at once. Draw the labia wide open, and, after clearing away all blood-clots and lochia, determine the direction and extent of the laceration. Fit the lips closely together and see how many sutures and what kind it will take to repair the injury; for partial lacerations, or even to the sphincter, two, or at most three needles, armed with No. 10 silver wire, will suffice—two or three more will be required for complete lacerations. I have used satisfactorily, when the tear was half way through the perineal body, the suture, introduced at the upper part of the vaginal fissure, making it pass deeply around the tissues, going beneath all fissures and closing the tear completely against all drain from the involuting uterus, which, if not closed, would pass over it.

I will not take up the valuable time of

this Society in describing the different methods of operation for all the recent works on gynaecology will be found satisfactory for this purpose.

We will now look to the pathological results of these injuries. Most medical observers have witnessed deep splits in the perineal body without operation, and yet no inconvenience has occurred. This, however, is not the rule, and the cases neglected may later on seek the gynaecologist's aid. While the victim is in vigorous health and has a pelvis well cushioned with cellular tissue, the uterus and vagina with remaining organs may still remain in (situ) normal position. But when these begin to fail and the whole system runs down (a physical wreck), and almost invariably where there is much standing, walking or other physical effort, displacements and disability ensue.

Dr. Gillard Thomas enumerates the following formidable list of ailments, any one or sometimes groups of which are consequent upon the injury: Septicæmia, anterior and posterior uterine displacements and hyperplasia, uterine engorgement, cystocele, rectocele, chronic cystitis, subinvolution of uterus and vagina, destruction of the uterine ligaments, the development of a tendency to abortion, neuralgia affecting the site of the rupture with impairment of the sexual enjoyment in the male.

In August, last year, it was my ill-luck to witness a distressing illustration of neglect. The patient had been delivered in January and had a laceration extending through the perineal body. Her physician, after waiting till the third day, attempted to do the primary operation, but of course without success; he then told his patient she could not be cured here, and that there was not a surgeon in the county who could do the operation, and advised her husband to take her to a hospital, which he could

not afford to do. She was in this state when I was called to see her, suffering with neuralgic pains at site of laceration, lying across the bed, with legs flexed on thighs and thighs on abdomen. It was a pitiable sight to behold—there, before me, lay this poor woman, suffering the most intense, agonizing neuralgic pains. She gave the history of being delivered some months before of a large male child, and that her physician on leaving assured her that she was *all right*; but two days later, when passing a catheter, realized that he had overlooked the laceration, and attempted the primary operation, but without success. She recovered slowly from the puerperal period and realized pain and pressure about her genitals—complained that it felt like her bottom had given way, which was increased on walking or standing—when her strength was overtaxed she suffered with headache, profuse leucorrhœa and pelvic tenesmus and neuralgia; she was constantly constipated, but otherwise well, unless she took too much exercise and brought on an attack of neuralgic tenesmus. I advised an operation, which was acceded to. I began to make preparations by building up her general health to the best possible condition. After this was done, and two days before the operation was to be performed, I gave a dose of pulv. glyc. co. The next morning her bowels moved spontaneously, and an hour later an enema of borax and hot water was given, to wash out the rectum; she had a light liquid breakfast; a large vaginal douch (1-5000 bichloride) was then given, to thoroughly cleanse the parts. At 10:30 o'clock she was anæsthetized by my esteemed friend, Dr. Freeman, and I performed the operation of secondary perineorrhaphy; the bleeding was easily controlled when the sutures were placed. The site of operation was dusted with powdered iodo-

form, covered with marine lint and dressed antiseptically, dressings held in position by a T bandage. She was very comfortable, only feeling a slight burning sensation at wound. She took a glass of milk and slept for several hours during the night. The catheter was used for the first forty-eight hours; after this she was turned over on her face and urinated in a bed-pan placed under her; on the morning of the third day she took a Seidlitz powder and at noon an enema of castile soap and water, which moved her bowels freely and easily; her bowels moved daily after this with the aid of soap enemas; after the 5th day the dressings were changed daily. There was no discharge from wound or vagina, nor was there any vaginal injection used at any time. On the tenth day she was placed in Sim's position and the sutures removed without making any traction on the parts.

The patient was allowed to sit up in bed after the 12th day. On the 15th day she was allowed to sit in a chair; on the 16th day she was walking about the house.

The result was gratifying—she has been restored to full health and vigor. There can be no question that the duty of the second physician, into whose hands these cases fall, is to quiet, or at least try to suppress any existing resentment of the patient towards her former attendant, and to make due allowance for all prejudice and exaggeration.

The surgeon in such a case is well-nigh powerless, and it is, as a rule, best to let the matter pass in silence.

These lacerations are sometimes unavoidable, and the accoucheur should be given the fullest possible protection and defence. In my judgment it is the duty of every physician, as soon as he recognizes a laceration, to make a frank honest statement, shorn of all techni-

calities, to the patient and her friends, giving reasons why the immediate operation should not be postponed; this plan has invariably served me. The failure to perform primary perineorrhaphy is not chiefly because it is a difficult operation, or that the obstetrician has not sufficient surgical skill, but rather because he fears the discredit among the laity of being a blundering, unsuccessful practitioner. This apprehension will in the future, more than in the past, be offset by the damaging exposures made by such cases seeking the aid of the gynæcologist.

I feel fully warranted in saying that any physician perpetrates a great wrong in his patient in not observing any well-established rule for their benefit which is life-saving and health-giving.

It will not avail to abuse the specialist. Those unsealed lips will in the future speak out against the practitioner of obstetrics who does not heed the warning.

I will beg leave of this Society to narrate a case of primary perineorrhaphy which occurred recently in my practice, presenting some interesting points:

February 9th I was called to see Mrs. J., 22 years old, a lady of slender physique, 5 feet 6 inches high, in the non-pregnant state weighed 118 pounds. The first stage of labor was stern and protracted. Her labor was well advanced when I arrived—nearing the second stage. On digital examination I diagnosed L.O.A. position. The delivery was effected under chloroform, given at first only during the pains and pushed to relaxation when the perineum was reached. After six hours of hard struggling in the second stage, the perineal body gave way and the third stage was soon completed. On examination, the

laceration was found to extend through the perineal body and one and a half inches up the rectum. As soon as I could deliver the placenta and secundines and get firm contractions of the uterus, even before the effects of the chloroform had died away, I commenced the operation of primary perineorrhaphy, previously clearing away all blood-clots. With a long 3-inch curved needle, as advised by Emmett, I made the needle sweep around the rent in the bowel, entering on the right side of the anus and emerging on the left; two more sutures were put in so as to cross the rent at proper intervals. The rent was satisfactorily closed, as indicated by the index-finger of the left hand in the rectum, which is essential, both to the introduction of sutures and to realize the proper closure of the fissure in the rectum. Retaining the finger in the rectum, two additional sutures were introduced in the perineal portion of the laceration, which closed the tear completely. Over the wound I placed a piece of absorbent cotton, saturated in a 10-grain to $j\bar{3}$ solution of chloral hydrate, as suggested by Goudell, over this some dry lint, held in position by a T bandage. The temperature never exceeded 100° F., and the pulse did not go beyond 80. The milk-flow was satisfactory. The child weighed $14\frac{1}{2}$ pounds at birth—the largest I ever delivered. On the 8th day I removed the sutures, which, despite the strain, held their own beautifully.

The patient throughout was kept on a light nitrogenous diet, milk being excluded. Sixty days after delivery the perineal body was perfectly restored, the process of involution was thoroughly accomplished, and there was nothing to mar the completeness of the success.

SUGGESTIONS ON THE PREVENTION OF TUBERCULOSIS, AS WE KNOW IT TO-DAY.

BY S. WESTRAY BATTLE, M.D., of Asheville, N. C., Member of the North Carolina
Board of Health.)

(Read before the Health Conference at Salisbury, N. C., September 13th, 1894.)

MR. CHAIRMAN :—In calling the attention of this Board to the consideration of measures to prevent the spread of the hydra-headed monster, tuberculosis, I wish to preface my remarks by disclaiming any intention of being other than conservative. It is so easy to become an alarmist, and when backed up by bald facts and figures, such as the history of tuberculosis offers, he must be phlegmatic indeed who is not stirred to his inmost soul by the contemplation of the ravages of consumption.

The brief remarks I shall make will simply be intended to open the discussion on the subject now agitating the world. So, then, Mr. Chairman, I want to know what we are going to do about the greatest scourge the human race has ever known? What are we going to do about a disease which annually carries off 7,000,000 people, and, coming closer home, strikes down 150,000 inhabitants of the United States, and, closer still, causes the death of not less than 4,000 people in the State of North Carolina. Think of it, within our sparsely settled borders ten deaths occur per diem from this dire malady, and yet we complacently move on, scarcely giving it a thought. It is simply consumption—we are used to that. It is part and parcel of our existence, we say. Still, let yellow fever or cholera threaten our borders, and town, county, State and Federal Government are up in arms and ready to spend any amount of money; yet this epidemic is nothing compared to the great epidemic of tuberculosis, which causes more deaths per annum

than all the other contagious and infectious diseases combined. Contemplate 300,000 tons of consumptive bodies to be buried annually—just think of it! And think of the billions and billions of vigorous bacilli tuberculosis which lie under the surface of the earth, whose life-term is anywhere from 5 to 25 years. Bacilli have been found in the earth from cemeteries where inhumation has not been practiced for 25 years. Is it strange that consumption is increasing? And is it any wonder that, with our present knowledge of the communicability of this disease, that the attention of every sanitarian is directed towards its suppression, since it is conclusively proven that rather more than one seventh of the entire mortality of the world is directly traceable to it?

In order that we may the more intelligently devise ways and means for its prevention, let us briefly review the ætiology of tuberculosis and the manner in which it affects the human species.

Since Dr. Robert Koch, in 1882, announced to the world his discovery of the bacillus tuberculosis, our views in regard to this disease have undergone radical changes. It is now a fairly established fact that this bacillus is a specific pathogenic agent in the production of what we know as consumption. From time to time, as the discovery of the specific germ of other diseases has led us to take measures aimed at its destruction, so in this disease investigation is turning on more and more light upon the nature of this subtle enemy sooner or later to be vanquished and

modified, perhaps, as the small-pox has been.

This special bacillus or germ is a small vegetable parasite, rod-like in shape, having a length of about one-fourth to one-half the diameter of the red blood corpuscle, so that it would require from 7,000 to 15,000 of these tiny vegetable rods, if placed end to end, to measure one inch. The staining of these bacilli, so that they may be readily seen by the microscope, is easily done and a matter of only a few moment's work, and where there is the least doubt in regard to the diagnosis, the physician should at once resort to his microscope.

Bacilli are said to be universally present in the lower stratum of the atmosphere, just as they are always found in the upper part of the earth, with the exception that tuberculosis is rarely ever found over ten thousand feet in altitude, and never found over sixteen thousand feet elevation. Scrapings from beds occupied by tubercular patients, the dust in the floors, on the walls, in the curtains, etc., and dwellings previously occupied by phthisical patients all teem with bacilli. Guinea pigs injected with these germs die rapidly of consumption. Dr. Osler has estimated that from one and one-half to four billion of bacilli are expectorated daily by every well-marked case of phthisis.

It is hardly necessary to say that the bacilli are not alone found in the lungs, but frequently in every glandular structure of the body and in the bones. And we find it, too, in the disease called leprosy, which is really nothing more than tuberculosis of the skin. So you perceive that tuberculosis does not always mean tuberculosis of the lungs, but the fact is we do recognize it most usually in the respiratory organs for the simple reason that they furnish the easiest mode of ingress, and there the bacilli are more

likely to find a cultivated field in the bronchial glands and sub-mucous tissues.

But a little while ago tuberculosis was considered hereditary. Now all is different. It is said that it cannot be born in an infant, but must be acquired. This is at least a source of comfort, for how cruel indeed would be the death-rate if to its now known communicability should be superadded hereditary consumption. But that an hereditary susceptibility, which is almost as bad as direct transmission of the germ, is the rule, is now a fairly well-established fact. Not all people are susceptible, nor even all the mammalia, though we know a large proportion of the human species is liable to become affected, and cattle, monkeys and guinea pigs are most susceptible of the lower animals.

It has become common to speak of a person non-susceptible to a contagious or infectious disease as being immune. The great aim of the present day is to render the human species immune to the bacillus, and on this line Koch, Klebs and others are hard at work. A few years ago the former thought he had pursued the enemy to its lair and forever routed it by the manufacture of a lymph which is now commonly called tuberculine, and, with modification, tuberculosidine. The world was agog, but was disappointed, for the wary bacillus, hidden in the fastnesses of the lymphatics, eluded its enemy, not always, to be sure, but often enough to make the remedy fall into some sort of disuse and disrepute. Yet the discovery was one of the greatest of the age, and along this line will yet be found, I predict, the remedy to render the human species immune.

What peculiar diathesis, we may ask, or hereditary tendency, is it that opens wide the doors for an entrance of this bacillus? Why are some immune and

so many not? I will answer that this susceptibility seems to be a condition closely allied to the strumous diathesis, a condition generally hereditary, but may be acquired, so that it is not uncommon for a subject to begin life immune and become susceptible through environment and affections other than tubercular. An untainted heredity is surely the most priceless gift of the Almighty.

By the way of illustration, the human species may be compared to nature's great cultivated field. Struma and its allies are the fertilizers, the bacillus tuberculosis is the seed, consumption the harvest. Let us take, for instance, two subjects, both apparently in vigorous health, but one with a strumous history, for we must not lose sight of the fact that a person with a strumous heredity is not incapable of the maximum of health; the latter is simply susceptible, the first is not. Inoculation of the first with a culture of the bacillus tuberculosis would in all likelihood produce no results. Tuberculosis would surely follow the inoculation of the latter. The first will go through an influenza, an ordinary bronchitis or pneumonia, and soon be as well as ever, whether the bacillus is present or not. The latter readily falls a victim to tuberculosis. As Dr. E. A. Wood has tritely put it: "A strumous person, an open sore, the presence of the bacillus, lymphangitis, bacillary consumption—that is the gamut of fate."

The lymphatic gland is the habitat of the bacillus tuberculosis, and the latter never enters a lymphatic gland without destroying it, but it is rarely, if ever, found in the blood. When found there it seems to be a pretty well-established fact that it is accidental and transitory, that it is on its way to one of the depuratory organs. Indeed, the blood is

shown to be intolerant of the bacillus and the blood corpuscles destructive to its life. When inoculation from the bacillus culture is done, the nearest lymphatics are soon engaged in a lymphangitis and in the susceptible subject general tuberculosis follows. The bacilli may reach the blood in many ways, but they never linger there. Their reception is unfriendly, and those that escape find their way into the nearest lymphatic vessels, there to do their deadly work, and with their swarming offsprings proceed to other glands to kill and destroy. So its choicest pabulum is adenoid tissue, and all the remedial agents that have ever established any merit for themselves have been such as have acted upon this glandular system.

Sterilize the lymphatics and the subject is immune. Perhaps along this line of Pasteurism a guinea-pig, one of the most susceptible of the lower mammals to tubercular infection, may be made immune, and it appears to me as quite in the range of possibility, even probable, that products from its lymph may be used and the human species at last be protected against this now spreading poison.

Every tubercular patient is a menace to the community in which he lives. By far the most common means of spreading the disease is the sputum dried into dust and disseminated by the atmosphere into the lungs of innocent but susceptible persons. But this is not the only means of dissemination. The dairy is a common source of tuberculosis, especially in children, as it is estimated that 3 per cent. of the dairy cows near our large cities are tubercular.

To sum up the more common ways by which the bacilli enter the human system, we may mention inhalation, the ingestion of bacilli derived from mam-

mals, either as food or drink, by using or handling infected articles, as money, furniture, etc.

With our present knowledge, no open sore should remain an open sore any longer than possible. More especially should this be observed in the strumous subject.

Let us now briefly consider means for restriction or prevention of tuberculosis. Society must be educated, and surely legal methods are consistent with the highest civilization. We vigorously quarantine against other infectious diseases, as small-pox, yellow fever, cholera, etc., then, in the name of the commonest of common sense, if tuberculosis is preventable, let the sanitarian overcome the difficulties, if difficulties do exist, and educate the masses, by authority invested in the Board of Health, by literature and every means in his power.

1. In the first place, then, every tubercular patient should be instructed by his medical adviser to see to it, by every means in his power, that others should not suffer through his own affliction, and that his own recovery hinges largely upon the scrupulous care with which he disposes of his own excreta and pathogenic secretions. Let him never expectorate where the sputum will dry. Ingenious paper sanitary cuspidors, cheap and easily procured, may be readily obtained, and these should be daily destroyed by burning. Persons suffering from consumption who spit on the floor or on the street should be subjected to a fine, if, indeed, such a punishment should not be meted out to him whether he has consumption or not. Some of my patients have found it convenient to carry in the chatelaine bag a small wide-mouthed bottle with rubber stopper, in which is poured every morning a small amount, a spoonful or two, of a solution of bichloride of mercury. Into this one

may easily and inconspicuously expectorate, and avoid the use of handkerchief or napkin, which should never be used unless they are destroyed before they become dry.

2. Our State Board of Health should by all means make it obligatory on the part of physicians and householders to report to the local Board of Health all cases of tuberculosis, so that the State Board can properly give instructions to patients and attendants, through their local health officers, of measures relative to the restriction of the disease. Such measures need not interfere with the individual liberty of the sufferer, or in any way hamper him in his usual avocation. The Board is already vested with such authority in regard to other contagious and infectious diseases, and the sooner we add tuberculosis to the list and enforce such regulations, the better for the general public. For, as I have already remarked, tuberculosis is contagious, and is so recognized by every progressive medical man. In this connection I may say that it is within the walls of buildings that tubercular infection is almost entirely found, the chance of infection outside being almost reduced to a minimum as compared to the danger within. Intimate household life is responsible for the spread of the disease.

Dr. Flick, of Philadelphia, after studying the distribution of tuberculosis in a single ward of that city, found that about one-third of the houses were infected with pulmonary tuberculosis, and that in 33 per cent. of those infected there was more than one case; that is to say, that one-third of all dwellings contained tuberculosis, and of these one-third contained more than one case. Very few physicians of experience can fail to recall households where two or more in the family have died with the disease.

But since it is not hereditary, the contagiousness thereof must appeal powerfully to any thinking man. More than a century ago, long before consumption was thought generally to be contagious, a law was enacted in Naples compelling physicians to report all cases of tuberculosis to the Health Department under a penalty of a fine of 3 ducats; the second offence was punished by ten years imprisonment. By the rigid enforcement of such a law, it is claimed that Naples has reduced her mortality from consumption 90 per cent. England and other countries are taking up the matter of isolation of tubercular patients, and are daily reducing their mortality from this disease.

There could really be no greater charity than establishing State Sanitaria in good localities for the segregation and isolation of the consumptive poor, where they could receive proper food and judicious management. Nor would this be poor economy when we consider, aside from the question of sociology, what an enormous saving would result, by the lessened mortality, in the thereby prolonged business activity of thousands of the State's best subjects. Society must by all means be protected, and how better than by the inauguration of such institutions, which we can readily see from the above, would not, in the long run, prove a burdensome charity.

3. In the matter of the disposition of those dead of tuberculosis cremation should be the law, rigidly enforced. The body should be wrapped in sheets wrung out of a solution of bichloride of mercury and cremated as soon as possible, for we have seen that live germs are found in cemeteries from two to twenty-five years after burial has taken place.

4. All dwellings and public institutions which have been exposed to infec-

tion from patients suffering from tuberculosis should be properly disinfected, and this should be a law. And all beds, carpets, curtains, etc., should be steamed for at least two hours. As a general disinfectant for washing walls, floors and articles of furniture, nothing is perhaps better than a solution of bichloride of mercury, one part to a thousand.

5. The State Board of Health should have the power and means with which to cause careful and scientific bacteriological examinations in any case where the condition arouses the suspicion of tubercular infection, as in food products, milk, etc., as furnished in our cities and towns.

In conclusion, I cannot do better than suggest that we adopt the resolutions, relative to restriction of this disease, which were recommended by the Committee on the Restriction and Prevention of Tuberculosis of the American Public Health Association in Chicago, October last. These resolutions, as adopted, read :

1. The notification and registration by health authorities of all cases of tuberculosis which have arrived at the infectious stage.

2. The thorough disinfection of all houses in which tuberculosis has occurred, and the recording of such action in an open record.

3. The establishment of special hospitals for the prevention of tuberculosis.

4. The organization of societies for the prevention of tuberculosis.

5. Government inspection of dairies and slaughter-houses, and the extermination of tuberculosis among dairy cattle.

6. Appropriate legislation against spitting into places where the sputum is liable to infect others; against the sale or donation of objects which have been

used by consumptives, unless they have been thoroughly disinfected.

7. Compulsory disinfection of hotel rooms, sleeping-car berths and steamer

cabins which have been occupied by consumptives, before other persons are allowed to occupy them.

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GANGRENE OF THE LUNG FOLLOWING AN ATTACK OF PLEURO-PNEUMONIA.

BY E. B. GOELET, M.D., Saluda, N. C.

On December 1st, 1893, I was called about three miles distant to see Robert H., a young man of 23 years, and found him suffering with a severe attack of pleuro-pneumonia, involving the greater part of the left lung, the pleura and pericardium. He complained of intense pain in the region of the heart and of great difficulty in breathing.

The history was that he was addicted to the frequent use of alcohol (or mountain whiskey), and, though seldom drunk and down, still more or less saturated with it all the time for the past year, and, three days previous to my call, he had ridden in an open buggy through a cold rain for a distance of about thirty miles. The attack came on, the night before my visit, with a severe chill, which lasted about an hour, and was promptly followed by a high fever. I found his pulse 120, temperature 104°, respiration 30. Physical examination elicited congestion of the greater part of the left lung, with diminished respiratory sounds.

I gave him at once an alterative powder of 5 grains calomel, 1 grain ipecac and 20 grains bicarb. soda, and directed him to take 10 gtt. fld. ext. jaborandi every two hours until his perspiration was profuse and his pulse down to 100, then diminish the dose one-half, unless the fever showed a disposition to advance,

in which event to take the original dose.

Upon my visit next day I found his condition more comfortable. I then put him upon carb. am. 5 grains, tr. digitalis 5 drops, syrup tolu 1 drachm, every four hours, to liquify and thin the exudation and promote the expectoration, also as a respiratory stimulant and to fortify the heart for the trial it was to undergo, and applied a mustard plaster over the congested area. Upon this treatment the expectoration gradually increased and the respiration grew slower until the sixth day, when there was a severe change in the weather. His cough tightened up, pulse grew more frequent and fever advanced, showing that a larger area of lung tissue had become involved. I then gave the fld. ext. jaborandi for twelve hours and again returned to the digitalis and carb. ammonia. He got along very well for five days, when he had another relapse, and his condition grew quite serious. I continued the same treatment internally with the counter irritants externally, and fed him systematically with milk punch.

On the sixteenth day I noticed some prune-juice expectoration with offensive odor; this gradually increased, when, on the eighteenth day, gangrene of the lung set in. I found him lying on his back,

and there was such odor in the house it was hardly bearable. I had him turned over on his right side, thinking thereby to empty the bronchi leading to the inflamed lung, when he began to cough. In about fifteen minutes he expectorated eight ounces of fluid as black as tar and so foul that it was almost impossible to stay in the house. I then put him upon 5 drops spirits turpentine, 5 drops fld. ext. eucalyptus, and 2 drops beechwood creasote every two hours, with frequent inhalations of the vapor of turpentine, and in three days there was marked improvement in his condition. I continued this treatment for one month, prolonging the period between the doses as he

grew better, when I discharged him able to sit up, with temperature and pulse normal. At this time I found an area along the inferior border of the left scapula at least three inches in diameter, giving a hollow tympanitic sound upon percussion and a blowing respiratory murmur.

On the 15th of March he came to my office. I examined him and found the same area dull upon percussion, and, upon auscultation, a total absence of all respiratory sounds and without cough, indicating to me a filling up of the cavity with new tissue. He says he is now well again, and swears he is "done with whiskey."

WHEN IS THE ADMINISTRATION OF THE SULPHATE OF STRYCHNINE CONTRA-INDICATED DURING GESTATION?

BY T. RIDGWAY BARKER, M.D.

(Read before the Philadelphia County Medical Society, September 12th, 1894.)

In presenting this subject for consideration and discussion this evening, it is not my purpose to depreciate or undervalue the great benefit the sulphate of strychnine is capable of rendering in a majority of the cases of pregnancy.

The claims made for it by my friend, Dr. Duff, of Pittsburg, who has devoted himself with much enthusiasm to the study of this drug in its relation to obstetric practice, are not, I think, without justification; but, with the estimable conservatism of a seeker after scientific truth, he leaves the subject open for further study and research, awaiting until time and a wider experience shall prove its merits.

In a paper read before the South Side Medical Society of Pittsburg, and in one presented to the American Associa-

tion of Obstetricians and Gynecologists in 1893, he gives his clinical experience.

At the forty-fifth annual meeting of the American Medical Association, recently held at San Francisco, he again calls the attention of the profession to the value of strychnine, and points out that it renders abortions and premature deliveries less frequent by giving tone to the uterine muscles and nerves, as well as by its general tonic influence.

These statements are beyond question correct in the vast majority of instances; but he who would avoid error and misfortune must bear in mind that every rule has its exception, and that the latter, though often overlooked, is no whit less important than the former.

The sulphate of strychnine I have given to a score or more of women

during gestation with the happiest results, and so general was the improvement in their condition that I began to think that there was no exception to this rule, but I was not long left in doubt, for, as the following case reported will show, I met the exception in a most unexpected, but none the less pronounced, form:

Mrs. G., primipara, aged 29 years; white; general health good. Last menstruated in October; previously regular. Suffered greatly from morning sickness and distressing nausea for nearly four months, which was uninfluenced by internal medication. There was besides these symptoms costiveness and a more or less irritable bladder. The appetite was poor and loss of flesh was quite marked as the pregnancy advanced.

In the early part of the sixth month she first complained of a sense of weight felt in the abdomen and pelvis; this was soon aggravated by soreness and pain, which persisted throughout the day and night. The nervous depression in this case was all out of proportion to the severity of the symptoms, and seemed to trouble the patient more than almost anything else.

There was no kidney trouble of any kind nor evidence of swelling of limbs or face. The heart was normal save a slight anæmic murmur.

The blood was deficient in red-blood cells and showed a condition typical of that found associated with pregnancy. The woman, when married, weighed some 130 pounds, but now was much emaciated. The vagina and cervix were normal and the uterus in good position; there were no adhesions.

To judge from the size of the abdomen and the cavity of the fœtus, development was progressing favorably. There existed, however, double ovarian tenderness, which denoted congestion

of a pronounced type, and to this I ascribed, in part, the great mental depression, though, of course, much depended upon the anæmic blood supplied to the nerve centres.

Deeming this case one suitable for the administration of sulphate of strychnine from a careful analysis of the above objective and subjective symptoms, I determined to place the woman upon 1-20th of a grain, twice a day, with the hope that it would stimulate a healthy nerve-action and relieve, as has been claimed, the uterine irritability which threatened to result in an abortion.

I reasoned that the nervous disturbance was due to anæmia of the central nervous ganglia and involved the sympathetic system as well.

That the uterus threatened to expel its contents because the nerves controlling its muscular coats were in a state of hyperæsthesia dependent upon insufficient nutrition. With this idea I placed my patient upon the drug which experience had proved to be the best suited to overcome just such a condition as I found present.

With what result? Within thirty-six hours the uterus became more rebellious; its muscular contractions increased rather than lessened in violence, and recurred with greater frequency. The dull pain which had persisted for several days now became acute and intermittent, and radiated from the umbilicus to the loins.

An abortion was undoubtedly threatened, and might almost be considered inevitable. The sulphate of strychnine was promptly discontinued, as it had undoubtedly only made matters worse, causing a passive uterine contraction to become active, and thus augmenting the expulsive uterine forces.

A sedative mixture containing morphine, chloral and bromide of soda in

solution, was ordered to be taken every hour and the patient put to bed and directed to keep perfectly quiet. In a few hours the pains were allayed and the uterine contractions became feebler and recurred at longer intervals. These signs gave rise to a hope that the patient might yet escape an abortion.

Twenty-four hours elapsed with no return of the contractions. The prospect seemed to brighten, but only to give place within another twelve hours to a sudden and aggravated attack of pain, followed by strong uterine contractions, which, acting upon the cervix, soon overcame its constricting fibres, and an abortion was the result. In a few hours the whole uterine contents were expelled, much to the regret and disappointment of both physician and patient.

Thus ended one case of gestation in which strychnine may be said to have been the exciting cause of the abortion. Here we have what Duff probably refers to when he remarks in his paper, "I am not unmindful of the fact that I have seen apparent evil results from its administration in a few cases."

In looking over the history of the case reported, one cannot fail to be impressed with the fact that here was an instance where, had one known the exception to the rule, he would not have given strychnine, since clearly it was contra-indicated.

Instead of its acting as a sedative to the hyperæsthetic nerves through its tonic influence, it played the rôle of an excitant, and thus brought about the very result most to be deplored, namely an abortion.

Some may take exception to the size of the dose (1-20th of a grain) twice a day; this I grant is not a small dose, but at the same time it is one I have frequently given with the best results, and I have found that a much smaller dose fails to be beneficial.

I do not, therefore, think that the amount administered made any material difference. That strychnine requires to be given during gestation with much more care than has heretofore been exercised, I think is very evident. Moreover, when there exists great mental depression associated with symptoms of distress and pain, referable to the pelvic region, with involvement of the uterus, I think the administration of strychnine is contra-indicated, for under such conditions it is more than likely it will act as an irritant and not as a sedative, and so will tend to produce an abortion, the very danger one is struggling to avoid.

Strychnine, then, it would appear, is indicated in case of gestation which require a powerful nerve tonic, but contra-indicated when such cases are complicated by pronounced pelvic disorders of a nervous type.

A CLINICAL NOTE ON GLAUCOMA.

BY RICHARD H. LEWIS, M.D., Raleigh, N. C.

(Read before the North Carolina Medical Society, May 17, 1894.)

In a paper entitled *A Few Plain Words on Glaucoma*, which I had the honor to read before the Society at its meeting two years ago in Wilmington, I called

attention to the fact that it was sometimes accompanied with fever, nausea and vomiting, and that in a malarious region such a case might be mistaken

for remittent fever. Having just had a case beautifully illustrating this point—although the mistake in diagnosis was not made by the attending physician—and believing that papers of this class, i. e., having a practical bearing upon their practice, would be more acceptable to an audience of general practitioners, as well as in better taste on the part of the specialist, than discourses of a more recondite character, I have thought it well to briefly report it.

On March 7th Mrs. S., of Granville county, was sent to me by my friend Dr. T. L. Booth, of Stem, for failure of sight in the right eye. An ophthalmoscopic examination revealed apoplexy of the retina—numerous particles of extravasated blood scattered thickly over the fundus. An unfavorable prognosis was given, and in a letter to Dr. Booth iodide of potash in a bitter tonic was suggested as being about as good as anything else, though it was not expected that it would be of material benefit.

Three or four weeks after her return home I received a letter from the Doctor saying that she was suffering greatly with the eye and head. I replied that a glaucoma was a very common sequel to apoplexy of the retina; I thought it more than probable that she had hemorrhagic glaucoma; to look for it and report. He soon replied that the day he wrote he had made the diagnosis of glaucoma. He then detailed the very intelligent and proper treatment he had been using, including pilocarpine, and asked for further suggestions; to which I replied that he might try eserine sulphate (if he could find any in the drug stores of his neighborhood), of the strength of 1 grain to the ounce, of a 4 per cent. solution of cocaine, every hour, or, failing the eserine, a pilocarpine solution of twice the strength, with cocaine, in addition to what he was

already doing, but that, in my opinion, nothing short of surgical interference would give her relief, and that the proper surgical procedure would be enucleation—that the eye was hopelessly lost—that iridectomy in such cases was generally worse than useless, doing positive harm, and that sclerotomy, while somewhat better, was uncertain.

On the 18th of April I was summoned to perform the operation. An examination of the eye showed little redness, an oval, dilated, fixed pupil, haziness of the media and marked increase of tension, with no perception of light. A plain case of glaucoma of much severity. On the following morning the usual operation of enucleation was performed without incident under ether administered by Dr. Booth, his father, Dr. J. W. Booth, being also present.

The following is a history of the case kindly furnished me by Dr. Booth:

STEM, N. C., May 3, 1894.

Dr. R. H. Lewis, Raleigh, N. C.:

MY DEAR DOCTOR:—Your letter was received some time ago, and am sorry that I have not been able to answer it before, but I am just now beginning to sit up a little from an attack of dysentery, and even now hardly feel able to write.

Mrs. S. is doing perfectly well—is sitting up and going where she pleases. There is still some discharge from her eye. She has not had the attention since I have been sick that she would otherwise have had, or this would probably not be the case.

I have kept no notes of her case, but can perhaps remember sufficiently well to give you enough data to answer your purpose. I will say nothing of her primary trouble with her eye, as you know all about that from your own notes. Other than a simple antiseptic application before you saw her, I gave her no

treatment for that, except what you suggested, viz: pot. iod. and tr. cinchonæ co. This was, of course, discontinued at the beginning of the secondary trouble.

Some time during the latter part of March I was called to see Mrs. S., and found she had erysipelas of the scalp. The inflammation was superficial, though she had a temperature of 103° and complained of severe headache. I gave her acetanilid, 6 grs., which reduced the temperature to nearly normal and greatly relieved the headache. After a few day's treatment the erysipelas was much improved—so much so that she was able to sit up and walk about the room. She had had no rise of temperature since the first two days of the attack.

About the 1st (on the 2d, I think,) of April, I was called to see her in the afternoon and found her complaining very heavily of pain in her eye and head on the right side. Temperature 102.5° . Eye very red, but I could discover nothing else abnormal in its appearance. I gave acetanilid, grs. 6, and ordered calomel, grs. 5, to be taken; also ordered the eye to be bathed in hot water for twenty minutes. The acetanilid reduced the temperature to about normal, but failed to relieve the pain. After a few hours I called to see her again and found her still suffering very much. I gave morphine, $\frac{1}{4}$ gr., hypodermically (Mrs. S. is 68 years old), and left her. During the night she became very much nauseated and the pain still persisted. I was called, and thinking perhaps the nausea was produced by the morphia, I did not repeat the dose, but gave svapnia, grs. $1\frac{1}{2}$, which also failed to have any effect whatever. In a few hours I gave morphia sulph., $\frac{1}{4}$ gr., atropia, 1-150, hypodermically, which accomplished as little good as the others had done—indeed, the nausea seemed to

increase. Applied counter irritation to stomach, continued hot baths to eye, and gave morphia sulph., $\frac{1}{3}$ gr., ext. hyoscyam 2 grs., camphor 1 gr., to be repeated every four hours. This gave no relief. The calomel having failed to operate in the morning, I ordered an ounce of castor oil given, which operated freely.

On the 3d or 4th I wrote to you for advice, being much puzzled to know what was the cause of so much pain and nausea, and, suspecting that it was in some way connected with the diseased eye, on the same afternoon I examined the eye and found that sight was entirely gone, pupil dilated and very sluggish, if, indeed, it responded at all to light, and the tension of the globe much too great. I at once recognized glaucoma, as I perhaps should have done before, and began at once to put into the eye pilocarpin muriat., grs. jss., aqua $\overline{5}$ ss.—a few drops every two hours. This, like everything else, did no good. I about this time gave antikam., grs. xij., morphia sulph., grs. ss., which produced about four hours sound sleep. During the whole of this time, except when reduced by acetanilid, temperature had ranged irregularly from 101° to 102.5° . Patient now expressed herself as feeling better—had but little pain and temperature was only 99° . But this was not to last; about midnight the pain returned and following it the nausea, quite as bad as ever. I repeated the antikam. and morphia as before, but this time it failed to have any effect. I gave codeine phos., grs. jss., hypodermically, and repeated it in two hours, but with no effect more than an hour's restless sleep. Gave codeine sulph., grs. jss., every four hours, with no effect. Gave tr. hyoscyam. and f. e. stramonium, but they gave no relief.

On the 9th I received a reply to my letter to you, and at once substituted

your suggestion of "4 per cent. solution cocaine, $\frac{3}{4}$ j., pilocarpine mur., grs. ij—a drop or two in eye every hour"—for my simple solution of pilocarpine, but there was no change. I suggested an operation, but patient preferred to "wait a while," during which waiting I went through the whole list of anodynes almost, and found nothing which gave any relief. Patient would sleep an hour or two sometimes, but more because she was exhausted and slept in spite of the pain and nausea than from the effect of drugs.

After about the tenth day there was no more rise of temperature. It is strange that, although the nausea was constantly present, there was at no time any vomiting, and she took all the nourishment I desired.

On the 14th I urged the necessity of an operation, which was consented to. You reached here on the night of the 15th and saw the condition she had been in for days. You also, doubtless, remember how heavily she complained of nausea when she was put on the table for the operation, and, indeed, even until she was under the influence of ether. After the operation, since she recovered from the nausea produced by the ether (in about twenty-four hours), she has had no trouble of any kind whatever, and, as I stated in the begin-

ning, is able to walk about where she pleases.

I have never been called upon to treat anything in which the pain or nausea has been so persistent as it was in this case. Had I recognized the glaucoma earlier and applied remedies more appropriate in the beginning, perhaps it would not have been so severe, but, like many men in my position, I am very deficient in a knowledge of diseases of the eye.

If there is anything which I have omitted and which you would like to know, I will take pleasure in giving it to you.

Yours, very truly,

T. L. BOOTH, M.D.

Here we have a case of eye disease pure and simple, which, if it had occurred in a different section of our State, might have been easily mistaken for bilious fever. So that, whenever an eye is affected in a case of what appears to be disease of a general character, especially when pain in the head and nausea are present, the eye should be carefully examined and treated for the cure of the general and remote symptoms. In this case the nausea, which was extreme just before the operation, was very much less long before the effects of the ether—usually the cause of intense nausea—had passed off.

Society Reports.

SEVENTH ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS.

The American Association of Obstetricians and Gynæcologists held their annual meeting in the building of the College of Physicians and Surgeons,...

Toronto, on September 19th, 20th and 21st. There was a large attendance present, both of members and visitors. The chair was occupied at the opening of the session by Vice-President Dr. George F. Hurlburt, of St. Louis, Mo.; Dr. W. W. Potter, of Buffalo, Secretary.

Dr. James Thorburn, on behalf of the profession in the city, welcomed the members of the Association to Toronto.

The first paper was read by Dr. J. H. Carstens, of Detroit.

THE INCISION IN ABDOMINAL SURGERY— METHODS AND RESULTS.

In opening his remarks, he asked why it was that in many patients after an abdominal operation, when the precautions of remaining a long time in the recumbent position and wearing a bandage for a considerable time were taken, hernia followed; while, on the other hand, the patient might get up early and not wear a bandage at all, and yet no hernia follow. The method of closing the wound was the main cause. So long as the *en masse* suture was made, so long would there be danger of hernia. The making of the incision was very important. Clean sweeps of the knife should be made, no haggling, so that there would be the minimum amount of injury done to the tissues. After getting down to the peritoneum, the first two fingers should be introduced as a director. If the incision be exploratory, it should be short. Catch forceps he rarely needed to check the hæmorrhage in the wound. One-half minute should suffice to make the incision. As a ligature, he preferred the kangaroo tendon. A needle-holder was unnecessary. The next was the important point, the plan of stitching in tiers, first, the peritoneum; then the edge to edge approximation of the tendinous insertions of the oblique muscles with a running stitch, this being the

important row in this method of stitching, for securing the future integrity of the abdominal wall; then a few stitches through the fatty tissue; then a row through the external tissues approximating the skin, this being made with the buried suture. If there was any suspicion of dirt on the wound it should be cleansed, sealed with collodion, and left undisturbed for ten days. The patient might sit up on the eleventh day, walk on the twelfth to the fifteenth, and then be allowed to go home.

The essayist then explained how he would deal with ventral and umbilical hernia. In operating for tubercular peritonitis, he uses the *en masse* suture and silkworm gut. This was because the animal suture was in danger of becoming infected with the tubercle bacillus. The perfect incision and the perfect closure would leave the patient in such a condition that he or she would never be obliged to wear a truss or carry about a hernia which would be more distressing than the original disease.

Dr. Willis G. Macdonald, of Albany said there were things in the paper that he could not endorse. In cases of appendicitis, where there was abscess formation, followed by opening and drainage with rubber tube or the introduction of iodoform tampons, he believed the essayist would not use the method of suture. In his (the speaker's) experience the greater number of hernias has followed such cases. It was difficult to avoid them in such cases. In Albany they used the through and through suture, and in looking over Dr. Vander Veer's tables of 145 cases, he found less than 5 per cent. of hernia. The introduction of animal sutures in surgery was not always as successful as it would seem. He had used kangaroo tendon and catgut for the radical cure of hernia, and he had seen a return

the hernia. And so far as the silkworm gut in the buried suture had been used, his success had been similarly somewhat unsatisfactory. Another objection was the time it took to introduce the different rows. Time was not to be lost in such operations. He thought, too, that on account of the difficulty of sterilizing the animal sutures abdominal surgeons would not soon give up the use of silk and silkworm gut.

Dr. Reed, of Cincinnati, said that he was gratified to hear that a perfect means of closing the incision had been arrived at. If perfection had been arrived at at this point, they would hope that perfection would soon be arrived at in other regards.

Dr. Carstens said that he had used the buried animal suture, and where there was danger of excessive intra-abdominal pressure, as in fat subjects, he would fortify the closure by the addition of the *en masse* suture. What warrant had the essayist that, by virtue of catching and vomiting after anæsthesia, any case was not going to be followed by extreme intra-abdominal pressure? The painful cicatrix was due to the deposit of inflammatory exudate and the unabsorbed suture.

Dr. Cushing, of Boston, said he had tried the buried suture, but had given it up because the greater number of the cases did not heal well where it was used. The extra number of punctures was another disadvantage in the tier method. In some cases, where the abdominal wall was very thick by reason of fat, he agreed that the fasciæ would be better approximated.

Dr. Frederick, of Buffalo, did not like silkworm-gut suture because of the irritation of the sharp ends. Their use was often accompanied by suppuration, and they were difficult to remove. Such sutures were as unabsorbable as wire.

In an experience with 85 cases he had 50 per cent. followed by collections of pus, which he had to drain and wash out. He thought the best results would be got from the use of three or four fine sterilized catgut sutures to coapt the edges of the fasciæ. He had never seen hernia follow in cases so treated. The bad cases were where he had used the buried animal suture.

Dr. Longyear, of Detroit, stood up in defence of Dr. Carstens. He thought one of the great features in the use of the buried animal suture was to prevent what the last speaker had found take place. The two great points to secure were to have a thoroughly aseptic wound and an aseptic suture. They had had four years' experience in the plan described by Dr. Carstens, with good results. There was no need of reinforcement by external suture. The buried suture, with the sealed wound, was enough. By using the *en masse* suture afterward there was danger of carrying in infection, and the same danger was present when they were withdrawn. The fasciæ must be firmly united, and this took from four to six weeks. Where the *en masse* suture was used and removed at the end of eight or ten days, the fasciæ would be most liable to give way when strain was brought to bear upon it. He had used the kangaroo tendon buried stitch in perineal work as well, and his convictions were favorable to it. If done aseptically, he believed it would always result in success, as it had in his practice. In the *en masse* suture there was danger of the edges of corresponding tissues doubling up and union not taking place. He had used the catgut, but had found that it was absorbed too soon, and often produced abscesses.

Dr. Maclean, of Detroit, thought it made little difference which method was

employed, providing strict aseptic precautions were taken.

Dr. Tappy favored the plan of suturing in layers. He had sometimes been disappointed in the kangaroo tendon; but now he had it boiled in alcohol and afterward in bichloride solution.

Dr. Carstens closed the discussion. He claimed the *en masse* suture was uncertain; there was danger of pocketing of pus and of hernia insinuating itself between the stitches. In suppurative cases where he used the drainage tube he would use the *en masse* suture. As to punctures, there were no more by one method than the other. He admitted that the use of silkworm gut and the *en masse* suture might answer for the general practitioner, but the method he advocated was the ideal method for the experienced surgeon. He had had no hernias following this plan of closing the abdominal incision.

PLASTIC SURGERY IN GYNÆCOLOGY.

The next paper was by Dr. Joseph Price, of Philadelphia. "Perineal Operations" was the subject. He maintained that it was necessary to carefully study anatomy and physiology to successfully do gynæcological work. The mechanism of labor must be understood, and, if rupture of the perineum took place, the lines of rupture must be appreciated. The perineum always broke in well-defined lines, except where produced by instrumental violence. When from this latter cause, the wound must be treated as a lacerated wound anywhere else. The other wounds must be repaired in the lines in which they occur. Under the present abdominal régime plastic work was becoming a lost art. He opposed doing an external and an internal operation at one sitting. Surgery had not for its object the showing of the surgeon's endurance, nor how

much the patient could stand without collapse. It was sufficient to remember that these tears were lateral, extending out under the rami of the pubes; or central extending from the vagina towards the rectum, tending to run round the rectum instead of through it. The tears of the vagina were from within out and from above downward; therefore the skin operation for their closure was non-scientific. The operation should be done in the line of the destruction, and it should be commenced at the uppermost end of the tear. Operation immediately was to be done where the condition of the patient would be able to stand it. Silkworm gut was the most desirable form of suture. As little tissue should be included as possible, so as to avoid strangulation. When the sphincter ani was involved, the ends of the muscle should be brought together. This was Emmet's method, and, as a procedure, it stood preëminent. The technique was very simple.

Dr. Cushing believed that the methods employed for this condition ran into one another. The best part of the work was to be done in the vagina. A new perineal floor was to be made. Any operation which consisted in sewing up two or three inches of skin on the outside would not hold up the uterus. Where there was a tear at labor, the speaker advocated sewing up before the delivery of the placenta. In that way no time would be lost.

Dr. Heyd, of Buffalo, said that there was no operation practiced that brought about the same results as Emmet's. From the description in the book the operation was very hard to follow, but the difficulty disappeared when one once saw it done. It was the only operation that picked up the deep fascia and thoroughly restored the perineum. The operation could not be done at one

the wound would heal equally well even eight hours afterward. He thought it would be wise to wait this length of time in order to secure assistance to do a first-class operation if the sphincter ani were involved.

Dr. Cordier, of Kansas City, condemned the use of multiple operation for the relief of symptoms which would be relieved by an Emmet's operation. It had done its work better than any other operation.

Dr. Carstens advocated the repair of the cervix and perineum immediately after labor, where it was necessary. If left later, he would advise stitching up the cervix, leaving the sutures in for five or six weeks; then sew the perineum, and, after the wound was healed, he would take the sutures from the cervix. He advocated the same method of closure in the perineal wound as in the abdominal wound. If done with the buried suture, the patient escaped pain, which was present if the other method were employed. Asepsis was necessary to a successful operation.

Dr. Potter, of Buffalo, said he was glad this subject had been revived. Lately it had not been noticed so much, on account of the special importance that abdominal section had been demanding. He believed obstetricians had been neglectful of the immediate repair of the torn perineum. It was necessary that it should be properly done—done in a thoroughly surgical manner. If care were taken in preserving the perineum, the abdominal surgeon would lose a good deal of his work.

Dr. Dunning, of Indianapolis, said he was sorry Dr. Price had not given his method of applying the stitch in cases of complete laceration. It was difficult to get perfect results where there was complete laceration; comparatively easy where there was but partial laceration.

Dr. Longyear, of Detroit, spoke very highly of the operation. By means of illustration he showed how in old lacerations the denuding was to be done, and how the retracted muscles were to be picked up, so as to restore the pelvic floor.

Dr. Glasgow, of St. Louis, called attention to the fact that if the perineum were immediately attended to after labor, in the majority of cases, the secondary operations would not be required.

Dr. Davis, of Birmingham, Alabama, thought the reason there were so many failures after the immediate operations was that the work had been done by inexperienced men. In every case of obstetrics the physician should have everything needed to do an operation on the perineum. He agreed with Dr. Cushing, that the stitches might be put in before the placenta was delivered. The operations of Emmet, Tait and Martin practically accomplished the same thing. Few men used the buried stitch successfully. He was glad that it had been brought out that pelvic troubles could often be prevented by repair of the lacerated cervix and perineum.

Dr. Hoffman, of Philadelphia, pointed out that there was sometimes great difficulty in getting the patients to agree to the operation. In handling such cases it was necessary that the medical man should have the perfect confidence of the friends. If he has this he may do anything he pleases. One man in the discussion had spoken of the curette; but to say that every uterus that is lacerated needs curetting, was ridiculous. If there was a show of sepsis, then it was time enough to curette. The cervical tears would shrink wonderfully. A tear half as long as the finger would not be over one-half an inch long in five hours, and in two weeks would hardly be noticed at all. Where there was per-

sistent hemorrhage after delivery, it was often necessary to clean out the uterus and sew the cervix up. The speaker then gave his method of sewing up the ends of the divided sphincter. It would be found that the sphincter had straightened out toward the position of a straight line. It was absolutely necessary to find the end of the divided muscle, if union was wanted.

Dr. Dunning said that many men who purported to do the Tait operation did not do it. He thought bad results followed in these cases often on account of the stitches being drawn too taut. He was in favor of early repair.

Dr. A. B. Miller, of Syracuse, believed the best name for this operation was "restoration of the pelvic floor." Emmet's operation restored the deeper fascia, and in that way a body was got that would keep up the uterus. Tait's did not do this, nor did it give good lasting results. It looked very nice in a clinic. In many cases where it was found necessary to restore the perineal body, it was seen not to have necessarily followed the parturient act. There may have been no tear in the mucous membrane, but there had been loss of the perineal body through pressure atrophy.

Dr. Price, in closing, said there were too many women suffering from neglected plastic work; medical men were responsible for it. The pelvic floor should be restored in all cases of laceration where the perineal body was injured. The outside perineal operation was worthless. There was no operation that gave such pleasant results; for the symptoms were often most distressing—the sensation of everything coming down, of defecation through the vagina, etc. The buried suture was not so common now as it was a few years ago. Emmet himself had changed the opera-

tion. The scar tissue must be sacrificed. He (the speaker) had seen three women die from malignant disease which had generated in scar tissue. He did not agree with Dr. Cushing about doing the recent operation before the placenta was expelled. There was danger of injuring the wound in the delivery of the placenta. It might introduce dirt. The speaker gave a complete illustration of the method now pursued in doing this operation. He spoke of the added value of the silver wire suture; it acted as a splint. He considered operations done twelve or fifteen hours after as secondary operations; and they would not be as successful as those done earlier. Men should not be kept from doing the operation simply because the husband was excited and the baby was crying. The three or four sutures necessary could be introduced in a very few minutes.

After luncheon, Dr. W. B. Dewees, Salina, Kansas, read a paper on the

CARE OF THE PREGNANT WOMAN.

He said it was unnatural for women to suffer as they do during pregnancy and parturition. In the lower classes girls are neglected, and in the higher classes they suffered from luxurious indolence. It was necessary that there should be a revival of obstetrical learning, particularly as to the etiology of the difficulties of labor. The advanced study of human biology was the key. The diseases of pregnancy and parturition were preventable. Improper posture and dress, excessive sexual indulgence, were some of the leading causes of trouble. He believed in a wholesome forbearance from coitus during the period of gestation, and for three months following parturition. More attention ought to be paid to girls about the age of puberty. It was necessary when examining a pregnant woman to take into considera-

tion the condition of all the systems of the body. It was also necessary to study the mental phenomena present in so many cases. He advocated pelvimetry. Examination of the urine was absolutely necessary. Too early and too late marriages were deleterious to women. It was necessary that the parturient woman should observe regular hours, take plain nutritious food and drink. Exercise in the open air—if exercise could not be taken, massage was to be recommended. The bowels and skin should be kept acting freely. Puerperal fever, or parturial sepsis, as it would be better called, might be prevented by aseptic precautions at delivery. The reader showed how malpositions of the uterus followed improper posture. The convexity forward of the sacral part of the spine was a natural support to the viscera; but when a woman did not keep the erect posture, the weight of the abdominal viscera would come upon the uterus and displace it.

Dr. Carstens, in discussing the paper, said that if sexual intercourse were interdicted, as the reader had suggested, it would give the abdominal surgeon much to do in the way of taking out pus tubes. He dwelt on the necessity of strict asepsis in midwifery cases. The mass of the profession, he declared, did not know what antisepsis and asepsis were. Too many of them considered it the sticking of their dirty hands into a little carbolic acid solution. Dr. Hoffman considered pevimetry in practice impracticable. The patients would not submit to it. It would do little good anyway. It was merely a relative thing, for as much depends upon the size of the child's head as upon the size of the pelvis. In regard to douches, he did

not think the woman required a douche; it was the doctor who needed the douche.

Dr. Longyear alluded to the subject of albuminuria. He took the ground that it would be wise in every case of albuminuria in the pregnant woman with threatening symptoms to deliver. He believed in giving the benefit of the doubt to the mother.

Dr. Reed said he believed that albuminuria was a condition that could be cured. He could see no reason why these murderous tactics spoken of should be resorted to. Unborn innocence had rights we were bound to respect. Many of these cases were curable.

Dr. Price added that another point in the care of the pregnant woman was the necessity of shutting the mouths of old women, who scared the young prospective mother by their ominous talk regarding maternal impressions. As to cleanliness, soap and water would do the work if thoroughly used.

Dr. Cushing said that he did not agree with the essayist that sexual immorality was as bad to-day as it used to be. He believed the women were reforming fast enough, faster than the profession was in its ability to take care of them. He believed in letting the pregnant woman alone. Unless there was hemorrhage, or albuminuria, or something else to indicate a pathological condition, he believed a great deal of harm would be done if the pregnant woman was not let alone.

Dr. Jones said if this policy of interference was practiced the meddlesome obstetrician would lose the case. The majority of his cases of albuminuria had not been followed by eclampsia.—*Canadian Practitioner*.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

THE ANTITOXINE TREATMENT OF DIPHTHERIA.

Diphtheria is a disease so widespread, so rapidly fatal, and altogether so dreadful, that any measure which gives promise of greater success in its treatment is seized upon eagerly by the profession and the laity. In his report to the Eighth International Congress of Hygiene and Demography, Buda Pesth, Dr. Billings stated that of every 1,000 deaths occurring in the United States in 1890, diphtheria caused 49.54 per cent.

Working upon the belief that the cure of an acute specific disease is due to the production of a condition identical with acquired immunity, Behring thought to hasten this condition by injecting into the tissues of an animal suffering with diphtheria the serum of an animal previously rendered immune to that disease. Different animals were used to provide

the supply of serum—dogs, sheep, goats and cows, but finally the horse has been selected as the most suitable on several accounts—his comparative indifference to the inoculations, the blandness of his serum and the large quantities in which it can be obtained. The toxins which are used to immunize the animals is grown in broth, and the rate at which it is produced is increased by drawing a current of air through the culture liquid. After three or four weeks the horse, previously tested for the presence of glanders by the injection of mallein, is inoculated by injection under the skin. After repeated injections for three or four months the serum of the animal possesses high antitoxic properties. The efficacy of the serum is ascertained by test experiments upon guinea-pigs, and if effective, the horse is bled from the jugular vein and the serum separated by coagulation. The whole process, of

course, is carried out under rigid aseptic rules. The serum is at present prepared by Behring and Ehrlich, known as Behring-Ehrlich Heilserum, and by Aronson, known as Aronson-Heilserum. Behring has published a paper in which he says the serum prepared by himself and Ehrlich is issued in two forms (No 1 and No. 2), the latter being two and a half times stronger than the former. No. 1 is sufficient for the treatment of a case of diphtheria in a child under ten years old, if it be seen on the second or third day. In cases of long-standing, in cases of severe type and in adults a repetition of the injection will be necessary. No. 2 acts more surely and rapidly, but it is difficult to provide a constant supply of so active a serum on account of the trouble of rendering animals sufficiently immune to provide it.

The early reports of this treatment were received *cum grano salis* by conservative physicians, for they had not forgotten the chagrin that followed the final results of the use of tuberculin; but the reports that continue to be published would lead one to think that victims of diphtheria under the anti-toxin treatment have better ground for hope than have the victims of tuberculosis under the tuberculin treatment. In diphtheria final results are more quickly determined, and these would make it appear that the treatment is rapidly getting beyond the experimental stage. Of 163 cases of diphtheria treated in the Kaiser and Kaiserin Friedrich Hospital in Berlin, Katz reports that only 23 died—a mortality of 14.37 per cent. These cases were treated since March 14th, 1894. In the last three years (1891 to 1893) 1,081 cases have been treated by the ordinary methods with an average mortality of 38.9 per cent, the mortality for single years being 32.5 in 1891, 35.4 in 1892 and 41.7 in

1893. During the year 1894, preceding March 14th, 86 cases were treated, with 38 deaths—a mortality of 41.8 per cent. Dr. Katz has recently inoculated 72 children who had been exposed to diphtheria and of these only 8 developed the disease, and that in a very mild form, all recovering. The first case treated in this country, probably, has been reported to the *Medical Record* by Dr. Louis Fischer, who has recently returned from Berlin. His patient was a healthy girl of 11 years. When he first saw her, which was early in the attack, the temperature in the axilla was 102.6 F. There was intense thirst, general pains in the body, marked malaise, etc. Pseudo-membranes covered both tonsils and the posterior wall of the pharynx. The examination of a culture growth showed the Klebs-Loeffler bacilli. He injected 5 c.c. of serum, with a small hypodermic syringe. Some of the serum being wasted, he took a better syringe and injected 5 c.c. more of Aronson's serum. There was no reaction, and the following day the patient was greatly improved in both subjective and objective symptoms. On the third day following the injection no membrane remained and the girl was up. The general malaise seemed to pass off about a day after the injection.

There are no unpleasant manifestations following the injections. Dr. Baginsky says severe cases of nephritis following injections were never noticed, whereas several cases with severe albuminuria had wonderful improvement to follow the injections. The dose may be given as follows: Under 2 years, during the first two or three days, 2 or 3 c.c. are given; from 2 to 10 years, 5 c.c.; over 10 years, 10 c.c. The injections should be made with a syringe that has been sterilized, and is best given between the shoulder-blades. Improvement begins

within a few hours after the injection and the membrane disappears in from one to three or four days, the bacilli disappearing in nearly the same time. Abscess resulted only once in 200 injections at Kaiser and Kaiserin Hospital, and this healed quickly after being opened. The site of the injection should be rendered surgically clean prior to the injection. An erythematous eruption sometimes appears, but subsides in a few days. The temperature generally shows nothing of interest. Several of the fatal cases in the above statistics were complicated cases and it was distinctly stated that the antitoxin serum in these cases appears to act beneficially only on such lesions as are due to the presence of the diphtheria bacillus, the pyogenic organisms being practically unaffected. The cost of the serum is at present very great, some computing it at at least one dollar a dose. Efforts are being made to establish laboratories where it may be prepared at less expense, but it will hardly be within reach of the poorer

classes until it is provided by the municipal authorities.

AMERICAN ACADEMY OF RAILWAY SURGEONS.

There seems to be trouble in the camp of the railway surgeons. A new organization with the above title has been formed and held its first meeting in Chicago on November 9th and 10th. In a recent issue of the *Railway Surgeon*, which is the official organ of the National Association of Railway Surgeons, it is announced that the Executive Committee have deemed it expedient to "depose" Dr. R. Harvey Reed from the editorial chair. There seemed to be an incompatible mixture at the last meeting, from all accounts, that has at last resulted in an explosion. We presume there will be another chance now for the *Railway Age* to step in and devote a small portion of its valuable space to the report of the proceedings of the new organization.

Reviews and Book Notices.

Aseptic Surgical Technique: With Special Reference to Gynecological Operations, together with Notes on the Technique Employed in Certain Supplementary Procedures. By HUNTER ROBB, M.D., Associate in Gynecology, Johns Hopkins University; Professor of Gynecology, Western Reserve University, Cleveland, Ohio. Illustrated. Octavo. 264 pages; Cloth; Price \$1.00. J. B. Lippincott Co., Philadelphia, 1894.

No one can deny that to antiseptics is due the wonderful improvement that has marked the mortality rate in modern surgery. No one can deny, either, that

antiseptics in an operation directly are harmful. The great desideratum is to have the operation done aseptically, and the only place for the chemical germicides is in the production of a condition of asepsis. This having been done, they should be washed away with aseptic water. Dr. Robb tells how the thing is done in Johns Hopkins Hospital, and, while it is not expected that a private general practitioner should prepare for every operation with all the elaborate paraphernalia described in this volume, he will gain such hints as to what to do that his

own ingenuity should guide him in starting and keeping every operation in an aseptic condition, and so increase his ratio of recoveries. The illustrations are excellent and numerous—the paper and typography as good as could be desired.

A System of Genito-Urinary Diseases, Syphilology and Dermatology. By various authors. Edited by Prince A. Morrow, A.M., M.D., Clinical Professor of Genito-Urinary Diseases, University City of New York. With illustrations. In three volumes. Vol. III. DERMATOLOGY. Royal Octavo; Cloth; 976 pages. D. Appleton & Co., New York, 1894.

This volume completes the system, the first volume of which made its appearance in the early part of last year. The idea of combining skin diseases with syphilology was a very happy one, bearing, as they do, so closely upon each other. The system as now completed is one of the most valuable and important of recent productions in medical literature. The first and second volumes received the unqualified commendation of this JOURNAL, and have been most highly praised by all those journals whose notices have fallen under our eye.

The present volume is entitled to an equally favorable reception, bringing, as it does, the subject of Dermatology thoroughly up to date. That this subject is rapidly assuming vast proportions is evidenced by the fact that 976 pages have been necessary for its proper consideration, and even after much condensation by the Editor. The essential nature of many diseases heretofore obscure have become more clearly comprehended through the results of recent bacteriological research, e. g., the group of seborrhœic diseases and the various forms of tuberculosis of the skin. The Editor's task has been a most laborious one, and he has proven his fitness for it

by the most excellent manner in which he has performed it. The list of authors embraces 27 of the leading dermatologists of America and each is given credit for his contributions.

The text is illustrated by eleven chromo-lithographs, sixteen half tone plates and one hundred and four cuts. These, as also the general mechanical part of the book, are excellent and leave nothing to be desired.

International Clinics: A Quarterly of Clinical Lectures on Medicine, Surgery, Pediatrics, Obstetrics, etc. By Professors and Lecturers in the Leading Medical Colleges of the United States, France, Great Britain and Canada. Edited by Judson Daland, M.D., Philadelphia; J. Mitchell Bruce, M.D., F.R.C.P., London, and David W. Finlay, M.D., F.R.C.P., Aberdeen. Vol. I. Fourth Series, 1894. J. B. Lippincott Co., Philadelphia, 1894.

Interest in this popular series continues unabated, and properly so, for the editors have gotten together a collection of papers so varied and withal so excellent, that they cannot fail to be of value to any into whose hands they may fall. Specialists and general practitioners alike will find in them much to interest and instruct. We may mention among the many striking articles in the present volume one by Dr. Hobart A. Hare on the Hand and Tongue in the Diagnosis of Disease; Pernicious Anæmia, by Dr. W. Hale White, of Guy's Hospital; on Pott's Disease, by Dr. Lewis A. Sayre; on Suprapubic Cystotomy for the Formation of an Artificial Urethra, by Dr. Hunter McGuire; on Umbilical Hernia, Early Menopause, etc., by Dr. Paul F. Mundé; on Treatment of Trachoma by Expression and by Other Methods, by Dr. Thomas R. Paoley. One will hardly go astray in having these volumes at hand. Illus-

trations are numerous and generally good.

Essentials of Diseases of the Eye, Nose and Throat. By EDWARD JACKSON, A.M., M.D., Professor of Diseases of the Eye in the Philadelphia Polyclinic; and E. B. GLEASON, S.B., M.D., Surgeon-in-Charge of the Nose, Throat and Ear Department of the Northern Dispensary of Philadelphia, etc. Second Edition, Revised; 124 illustrations. W. B. Saunders, Philadelphia, 1894. Price, \$1.00.

This volume is No. 14 of the Saunders' Question-Compends, and is in the form of questions and answers. It comprises 290 pages, and is freely illustrated with excellent cuts. The rules for examinations with the ophthalmoscope and laryngoscope are made particularly clear, and the volume is not condensed to such an extent as will prevent its being useful,

not only to the student who desires to brighten up for his examinations, but also to the general practitioner who desires to make a hasty reference.

The Johns Hopkins Hospital Reports. Report in Neurology, II. Volume IV., Nos. 4-5. The Johns Hopkins Press, Baltimore, 1894.

We have here seven interesting and instructive papers from the pen of Dr. Henry J. Berkeley. I. Dementia Paralytica in the Negro Race; II. Studies in the Histology of the Liver; III. The Intrinsic Pulmonary Nerves in Mammalia; IV. The Intrinsic Nerve Supply of the Cardiac Ventricles in Certain Vertebrates; V. The Intrinsic Nerves of the Sub-maxillary Gland of *Mus Musculus*; VI. The Intrinsic Nerves of the Thyroid Gland of the Dog; VII. The Nerve Elements of the Pituitary Gland.

Notes of Practice.

GONORRHOEA.—Dr. Bernard E. Vaughn thinks gonorrhœa cannot be aborted at the time of the appearance of the discharge.

POSTERIOR URETHRITIS.—Dr. Vaughn says the posterior urethra can be washed out by means of a soft catheter and prefers as a wash nitrate of silver, 1-5000 to 1-500, or potassium permanganate, 1-5000 to 1-2000.

NEURALGIA.—Dr. Curran Pope considers fresh air one of the most powerful tonics we have, and should be taken *ad libitum* by neuralgics. Indian hemp, in $\frac{1}{4}$ -1 grain doses (when pains are sudden), and aconite are the two sedatives he has used with most satisfaction.

FORCEPS DELIVERIES.—Dr. Daniel Longaker advises that none of the details of an aseptic major operation should be omitted in the application of the forceps at the superior strait. Undue force should not be used, as, in contracted pelves, it would render the result, as far as the child was concerned as bad as craniotomy, and for the mother worse.

SUPPURATIVE OTITIS MEDIA.—Say Dr. S. McCuen Smith, discharge after rupture or puncture of the drum is best treated by inflating the cavity twice a week and the daily injection of a warm solution of soda biborat., 3 j; acid borici, 3 ij; alcoholis, 3 iij; aquæ dist q. s. to f 3 viij.

INTER-CRANIAL ORGANIC DISEASE.—

It is related of Dr. Moxon that he said: "If I were an Examiner in Medicine, I should ask a candidate—'What would you do if a young adult came to you with signs of organic disease within the cranium?' and if he did not say he would at once give iodide of potassium, I would send him down three months to think it over. . . . Acres of detail on the varieties of tumor-micrology become worse than frivolous beside an ignorance or a faulty grasp of this truth."

ASEPTIC SURGERY.—Dr. Edward Pendleton says remember to try always to arrest hæmorrhage by torsion of the bleeding artery, only using the ligature as a *dernier resort*.

DIABETES MELLITUS.—Dr. Cohen says (*Ther. Gazette*) don't try to cut off bread and potatoes altogether; the patient won't submit. Gluten bread is not reliable and is not palatable. Give small quantities of ordinary bread—toasted, if you like—say six small slices or three rolls a day. An occasional roasted mealy potato will be a great treat and won't harm the patient.

TOBACCO HABIT.—Dr. S. H. Condin suggests the following:

Gold and sodium chlor.....	gr. 1-24
Strychniæ nit.....	gr. 1-60
Nitroglycerin.....	gr. 1-200
Atropinæ sulph.....	gr. 1-200
Tr. digitalis.....	℥ 3
Capsicum.....	gr. $\frac{1}{4}$
Salicin.....	gr. 1
Cinchonidinæ sulph.....	gr. 1

For one pill.

BLOOD-COUNTING IN ANÆMIA.—Joslin and Denny (*Boston Medical and Surgical Journal*) offer the following method:

A drop of blood taken from the finger, which has been held firmly a few seconds to produce congestion, is diluted with 200 parts of the following solution: Sodii sulphatis, 104 grains; acidi acetic, 1 drachm; aquæ dist., 4 ounces. It renders the white corpuscles very refractive, so that the presence of one in a field of red can be detected at a glance.

DIVISION OF THE SPERMATIC CORD FOR ENLARGED PROSTATE.—Dr. G. A. Harman (*Medical Age*), in view of the instinctive reluctance with which man would part with his testicles, even when he has arrived at that age when they can be of no possible service to him, and the fact that he does not wish to be known as an eunuch, proposes simple division of the spermatic cord as a measure for causing atrophy of the prostate in lieu of castration, which is now being practiced. He recites the case of a man who would not submit to castration, but was easily induced to have the spermatic cord cut. He had been suffering for several years with an enlarged prostate, until he had reached the state where something had to be done. The cord was worked over to one side and the scrotum pressed closely around it. A hawk-bill bistoury was thrust through behind it and cut its way out. The severed ends of the cord and the cut scrotum were held in the fingers a minute or two to allow the blood vessels to contract, and when let go there was little bleeding. The wounds healed promptly. Atrophy of the testicles followed, as was expected, the size of the prostate diminished and the patient much improved. His patient is not well, but is growing better instead of worse. He asks for a name for the operation.

Correspondence.

TREATMENT OF SPIDER BITE.

WEAVERVILLE, N. C., Oct. 23, 1894.

Editor N. C. Medical Journal :

I see in the October number of your JOURNAL a fine description of the effects of a spider bite.

No one can describe a disease so well as the intelligent sufferer. My object in writing this is to give my treatment of spider bite. When I was younger I tried the whiskey cure, which was so much relied upon for snake-bite, but soon found that the spider poison and snake poison were not akin.

My treatment is as follows: I give a hypodermic injection of morphia, apply a lint wet with aqua ammonia to the bitten place, and give a dose of aqua ammonia every half hour until the sufferer is relieved. With this treatment I have never had to repeat the morphia, and have never failed to have the patient well in from six to twelve hours. I have treated five cases in this way.

Try it, and you will see the ammonia counteracts the poison.

J. A. REAGAN, M.D.

ALVARENGA PRIZE.

Editor N. C. Medical Journal :

The College of Physicians of Phila-

delphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about One Hundred and Eighty Dollars, will be made on July 14, 1895, provided that an Essay deemed by the Committee of Award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in Medicine, but cannot have been published, and must be received by the Secretary of the College on or before May 1, 1895.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within it the name and address of the author.

It is a condition of competition that the successful essay, or a copy of it, shall remain in possession of the College; other essays will be returned upon application within three months after the award.

The Alvarenga Prize for 1894 has been awarded to Dr. G. E. de Schweinitz, of Philadelphia, for his Essay entitled, Toxic Amblyopias.

CHARLES W. DULLES, M.D.,
Secretary.

Obituary.

WILLIAM GOODELL, M.D.

Dr. William Goodell, the distinguished gynecologist, died at his home in Phila-

delphia, on the morning of Saturday, October 27th, 1894, after a prolonged

sickness. He was the son of a missionary, and was born on the Island of Malta sixty-five years ago. He was graduated from Jefferson Medical College in 1854, and entered into practice in Constantinople, where his father was stationed. He returned to this country in 1861 and settled at West Chester. His condition was so precarious that he determined to go to the far West and try his fortunes there, and had his trunk packed ready for leaving, when he received an appointment as Physician-in-

Charge of the Preston Retreat. He was a Professor in the University of Pennsylvania and a member of several medical associations. His death works a great loss to the profession, and he will be missed and lamented by thousands who admired him, not only for his great skill in his specialty and the unusually attractive manner in which he imparted information to others, but for the manly and beautiful Christian traits which marked him as a man to be honored and trusted and loved.

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Professor Helmholtz, the inventor of the ophthalmoscope, died at his home in Berlin, September 8th, 1874, at the age of 73.

We notice that the firm of William R. Varner & Co. were awarded the Grand Prize for the purity and excellence of their preparations at the World's Fair Exposition recently held in Antwerp.

The *West Virginia Journal of Medicine and Surgery* is the title of a new monthly journal published in Huntington, West Virginia, with Drs. C. C. Hogg, J. Boyce Taylor and J. D. Myers as editors.

NOT EVERYTHING. — Teacher: "It is very kind of you to bring me this big apple, Willie." Willie: "Yes'm. I got one for mamma and one for you." Teacher: "And that isn't the first time you have remembered me along with

your mother. I guess that I must have had everything that she has, haven't I?" Willie: "No'm, not everything. Mother's had twins."

On May 1st Dr. Biggs reported the results of the bacteriological examination of 286 cases reported as membranous croup, made within ten months. Eighty per cent. of these proved to be true diphtheria, 6 p. c. per doubtful, and 14 p. c. were not true diphtheria. On this information he recommended that the Board class membranous croup among the contagious diseases.—*Ex.*

We are in receipt of a copy of Messrs. Sharpe & Dohme's latest price list. A number of new preparations have been added. The list is divided into two parts, those articles upon which trade discounts are allowed being printed on white paper, while those the prices on

which are net, are on colored paper. The list is very complete.

Dr. A. H. Buckmaster, one of the editors of the *American Gynecological and Obstetrical Journal*, has been elected to the Chair of Practice of Medicine, Obstetrics and Gynecology in the Medical Department of the University of Virginia, made vacant by the death of Professor Dabney. This final action of the Board reached us the day that our last number was issued, hence there was no chance to change the announcement that did appear, and which was correct when written.

There was quite a scare in Washington recently on account of an outbreak of small-pox among the employeës of the Department of the Interior. The Health Department took immediate steps to prevent its spread, and there is reason to believe that there will be no further trouble. There occurred 11 cases and 3 deaths. The Secretary set the example himself, and then ordered all the employeës to be vaccinated. The Department was closed for a day or two and underwent a thorough fumigation and disinfection.

The Ohio Food and Dairy Commission have lately been carrying out rigorously the Ohio Pure Food Law, and have made many arrests. The grocers were put on trial for selling preserves and jellies that were not made of fruit; but the interesting part to the profession is the attack upon the druggists. Among other things, the well-known preparation of coca, "Vin Mariani," caused the arrest of one druggist, Professor Fennel, the Chemist for the Commission, claiming that it was not up to the standard claimed for it. Professor Fennel has, however, since acknowledged

that he made a mistake in establishing what the standard is, and that he had not at the time he made the analysis examined the latest edition of the United States Dispensatory, and that the preparation is fully up to the standard established therein. He has also authorized the public announcement of the fact that the sale of "Vin Mariani" in the State of Ohio is perfectly lawful.

We had occasion to state, recently, that the technical term of the iodide of thalline was "tetrahydroparamethoxy-chinoline," which is short compared with some other terms. There is an old name for chrisophanic acid termed "dioxymethylantraquinone." An instrument used for breaking ossified callus in falsely united fractures bears the name of "dysmorphosteopalinklastes." The impurity of the cocaine called ecgonin is technically "methoxyethyltetrahydropyridinecarboxylic acid," while in chemical terminology the pure article is called by the name of "methylbenzomethoxyethyltetrahydropyridinecarboxylate." The last term is probably the longest word in the English language and contains 52 letters.—*Ex.*

REWARDS FOR FECUNDITY.—The Province of Quebec has a law bestowing 100 acres of government land upon every father of a family who has twelve living children, issue of a lawful marriage. Up to the present 174,200 acres of rich land have been given away in bounties to 1,742 fathers of twelve or more children who have complied with the conditions of the act. Not all these proud fathers, however, are satisfied with the amount of the bounty, for instances of families of twenty or more children are not rare, and the fathers of these want a proportionately higher reward for their patriotic efforts. One

old gentleman, Mr. Paul Belanger, of River Du Loup, wants 300 acres, and bases his claim upon the fact that he has 36 living children. Another claimant for an increased allowance is Mr. Theoret, of St. Genevieve. His wife, who is 30 years of age, has presented him with 17 children. She has just given birth to triplets for the second time in five years, and has had twins three times. Mr. Theodoret hopes to acquire a large portion of the province if his wife will continue to do her share.—*Med. Record.*

THE COSTUMES SHE WORE.—

She had five or six trunks of remarkable size

And a tiny valise.

The trunks she appeared very highly to prize,

But not the valise.

The custom house officer sized up the pile,

And thought the woman must travel in style,

But he didn't believe it was really worth while

To touch the valise.

He opened the trunks to see what was there,

But "passed" the valise.

Twas such a diminutive, dainty affair—

Was the little valise.

But she was a dancer—a star on the stage—

And the trunks held her "notices," page after page;

But the costumes she wore, that made her the rage,

Were in the valise.

JOHN CONNOR in *Home and Country*.

THE TEACHING OF MEDICINE IN DIFFERENT COUNTRIES.—There are in the twenty medical schools of Germany

over 8,000 medical students, 3,507 of whom are foreigners. In England there are now but 552 students of medicine, extremely few of whom are non-English, and this number is smaller than for many previous years. We append the totals for recent years for the purpose of comparison:

1883 . . .	605	1889 . . .	620
1884 . . .	587	1890 . . .	614
1885 . . .	647	1891 . . .	662
1886 . . .	623	1892 . . .	596
1887 . . .	683	1893 . . .	598
1888 . . .	688	1894 . . .	552

It is no wonder that England sends up a "bitter cry," in view of this comparative preference of medical students for German methods of teaching. Reasons have been sought to account for this remarkable condition, but all come back to the fundamental fact that the Germans are the more zealous, unselfish and more scientific—in a word, they are the better teachers. It does not lie in the English character to be a good instructor. The Englishman commands rather than teaches. There is no question but that, as any other, he is as good and successful a practiser, as capable a healer of disease, but when he tries to tell young men what he knows, and to inspire them with the enthusiasm of his calling, he is a sad failure. But we wish in no egotistic mood to call the attention of young Americans to the fact that there are no better medical teachers in the world than their own countrymen. With us teaching is natural, and no better facilities for post-graduate study exist anywhere than in the United States. They may not be quite the perfection of systemization, certainly not the remorseless and cruel use of "clinical material" to be found in German institutions, but we have in every one of our large cities, and in many small ones, hundreds of

men who know their science, with as good intellects, and who practise their art with as perfect skill as are to be found in Teuton-land. Instead of running away thousands of miles, any student can find at home the most willing and capable teachers, an opulence of hospitals and laboratories, that await his demand. We have too long spurned our splendid opportunities. We advise none to go abroad for what can be found in abundance at home. We are producing as good text-books as are made in the world, and nowhere can be found a higher and purer enthusiasm for medical study and research than burns in the hearts of Americans. This matter of studying abroad is a fashion, a fad, we were about to say, that appeals to weak minds, but which is unscientific, unpatriotic and to be discouraged on any ground of sense, common or uncommon.—*Medical News*.

Dr. Russell Bellamy, who has been on the staff of resident physicians of Bellevue Hospital, has opened an office at No. 35 West 31st street, New York City.

Mathew's Medical Quarterly, in commenting on an item taken from one of its exchanges, to the effect that the Kentucky School of Medicine had been dropped from membership in the Association of American Medical Colleges, says: "The Kentucky School of Medicine was never a member of the American Medical College Association, but the requirements in the catalogue recently issued are higher than are the requirements of the Association. The school has been conducted in strict accordance with the requirements observed by the most successful and reputable colleges, and no school has been more respected by the honorable members of the medical profession."

SOME EPITAPHS—At St. Paul's, Bedford, Mass., there is an epitaph on a tomb-stone that reads as follows:

Patience, wife of Shadrach Johnson.
The mother of 24 children, and died in child-bed, June 6, 1717, aged 38 years.

Shadrach! Shadrach!

The Lord granted unto thee

Patience,

Who laboured long and *patiently*

In her lowly vocation;

But her *pati-nce* being exhausted,

She departed in the midst of her labour

Ætat. 38.

May she rest from her labours.

On the tomb-stone of an infant three months old are these lines:

Since I am so quickly done for
I wonder what I was begun for—

A tomb-stone in Burlington, Iowa, has this stanza:

"Beneath this stone our baby lays,
He neither cries nor hollers;
He lived just one and twenty days
And cost us forty dollars."

It is reported that at Hendersonville, N. C., a child was recently born, its mother being 69 years of age and its father 70 at the time of its birth. That baby ought to belong to the "third party."

HEALTH OF WILMINGTON.—The following is the mortuary report for Wilmington for the month of October, 1894:

	Whites.	Col.	Total
Popu'ation.....	9000	13000	22000
Deaths.....	10	27	37
Death rate per cent.....	13.3	24.9	20.2

Meteorological.—Mean temperature, 65°; highest temperature, 87°; lowest

temperature, 45°; clear days, 19; partly cloudy, 6; cloudy, 6; days on which rain fell, 6; total precipitation, 4.58 inches; mean barometer, 30.03.

"THE AUTOCRAT."

Oliver Wendell Holmes. Born 1809.
Died October 7, 1894.
(From Punch.)

"The Last Leaf!" Can it be true,
We have turned it, and on you,
Friend of all?
That the years at last have power?
That life's foliage and its flower
Fade and fall?

Was there one who ever took
From its shelf by chance a book
Penned by you,
But was fast your friend for life,
With one refuge from its strife
Safe and true?

Even gentle Elia's self
Might be proud to share that shelf,
Leaf to leaf,
With a soul of kindred sort,
Who could bind strong sense and sport
In one sheaf.

From that Boston breakfast table,
Wit and wisdom, fun and fable,
Radiated
Through all English-speaking places;
When were science and the graces
So well mated?

Of sweet singers the most sane,
Of keen wits the most humane,
Wide, yet clear,
Like the blue, above us, bent;
Giving sense and sentiment
Each its sphere.

With a manly breadth of soul,
And a fancy quaint and droll,
Ripe and mellow,
With a virile power of "hit,"

Finished scholar, poet, wit,
And good fellow!

Sturdy patriot, and yet
True world's citizen. Regret
Dims our eyes
As we turn each well-thumbed leaf;
Yet a glory midst our grief
Will arise.

Years your spirit could not tame,
And they will not dim your fame;
England joys
In your songs, all strength and ease,
And the "dreams" you "wrote to please
Gray-haired boys."

And of such were you not one?
Age chilled not your fire of fun,
Heart-alive
Makes a boy of a gray bard,
Though his years be, "by the card,"
Eighty-five!

The *Charlotte Medical Journal* now is published in its own quarters, and in its new dress presents a very neat appearance.

A STATUE OF DR. J. MARION SIMS was unveiled in Brooklyn on October 21st amid impressive ceremonies. The statue is unique in being the first statue of a physician ever erected. The pedestal bears this inscription: "J. Marion Sims, M.D., LL.D.; born in South Carolina, 1813; died in New York city, 1883. Surgeon and Philanthropist, Founder of the Woman's Hospital, State of New York. His brilliant achievements carried the fame of American surgery throughout the civilized world. In recognition of his services in the cause of science and mankind he received the highest honors in the gift of his countrymen and decorations from the Governments of France, Portugal, Spain, Belgium and Italy."

Reading Notices.

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TREATMENT OF EPILEPSY.—It is an admitted fact that the Bromide is as much a specific for epilepsy as quinine is for ague. When the aura gives sufficient warning of an approaching "seizure," Nitrate of Amyl, inhaled, often wards off the threatened attack, and in the Elixir Six Bromides we have a combination that is as near a specific as anything we know of. The Elixir Six Bromides should be continued long after the epileptic is thought to be cured. It should be given continuously and without intermission for at least two years. The Walker-Green Formula of Elixir

Six Bromides is a very elegant and effective one.

COCA ERYTHROXYLON.—We need not enter into a full description of the history of the Erythroxyton Coca, as we believe that most medical men are fully acquainted with the principal facts concerning the plant. We may, however, recall to mind that the leaf is the only part of the plant used. Very much depends, therefore, upon the plucking of the leaf, and the time at which it is plucked; the subsequent care of the leaf being matter of considerable importance and affecting very materially the preparations made from it. M. Mariani was the first in Europe who took up the study of the plant, and over 30 years ago commenced manufacturing for the medical profession the various specialties associated with his name, viz: "Vin Mariani," "Elixir Mariani," "Pâte Mariani," "Thé Mariani," "Pastilles Mariani," etc., preparations which are known all over the world, and which have acquired their well-known reputation by their purity and efficacy. "Vin Mariani" is agreeable, palatable, imparting by its diffusibility an agreeable warmth over the whole body, and exciting functional activity of the cerebro-spinal nerve centres. We have frequently prescribed this wine, and we can, from practical experience, recommend it.—*The Provincial Medical Journal, London, Eng.*

A GENTLE LAXATIVE.—The profession, as well as the public, have long appreciated the importance of a simple laxative. Time out of mind remedies have been in every-day use in the home for this purpose, but it remained for the California Fig Syrup Company to furnish a pleasant, potent, perfect laxative, safe to be used in the home of members of the family of all ages. . . . The medical profession has consented to the use upon the part of the families under their care of Syrup of Figs, and specify in their prescriptions the product referred to.—*Medical Mirror.*

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" Mastic, $\frac{1}{2}$ grain | M. n. one pill.

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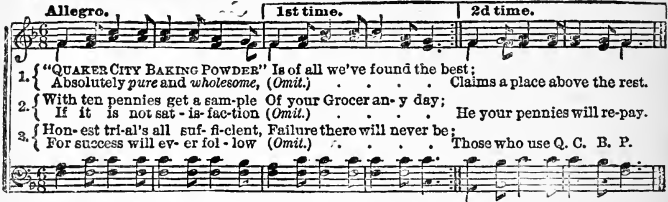
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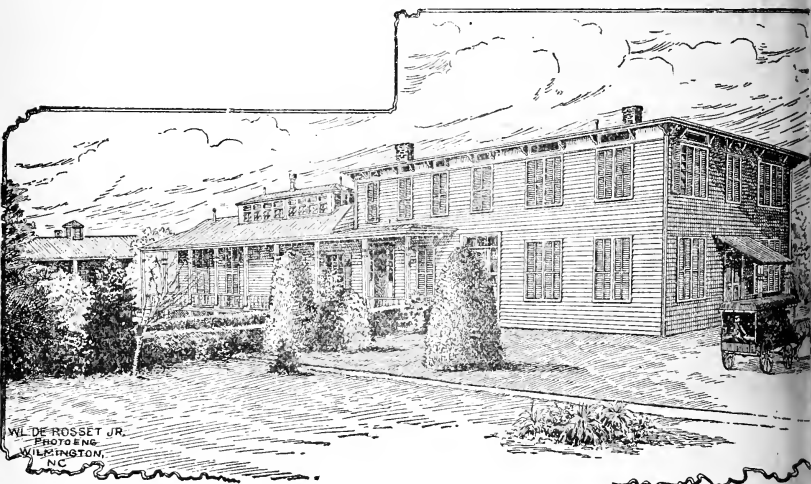
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ex-President and Honorary Fellow Medical Society of Virginia, in a letter, dated September 3, 1892 to Dr. E. C. Laird, Resident Physician at the Buffalo Lithia Springs, says;

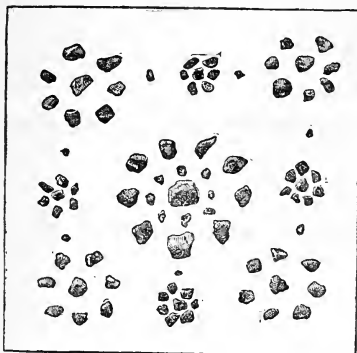


Illustration of the Calculi referred to by Dr. Claiborne. The engraving was made from a photograph and represents the exact shape of the Calculi; they are four times size of above.

"I send by this mail a box of Calculi, passed at various times within the last year by Hon. T. J. Jarratt, our former Mayor, whilst drinking the Buffalo Lithia Water. They give him but little pain now when passing. I have never critically examined the broken Calculi, passed in such quantities from Mr. Jarratt's bladder, but am under the impression that the most of them are magnesian phosphates. There were specimens, however, which presented the appearance of oxalates, and some, I remember, impressed me specially as being uric acid. I do not pretend to account for the mode of their solution by the Buffalo Lithia Water. There is nothing in its analysis which would warrant such results; but the results are there, and seeing is believing. I can only suppose that in Nature's alchemy there has been some subtle solvent evolved, too subtle to be caught by our coarse reagents, which makes this wonderful disintegration. 'There are many things in heaven and earth not dreamt of in our philosophy,' and his is a short creed who only believes what he can prove or explain."

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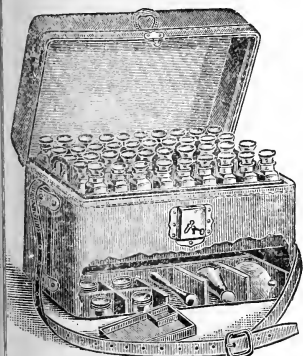
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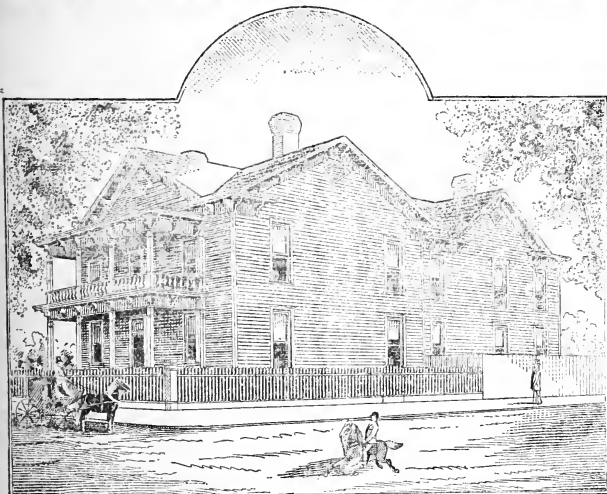
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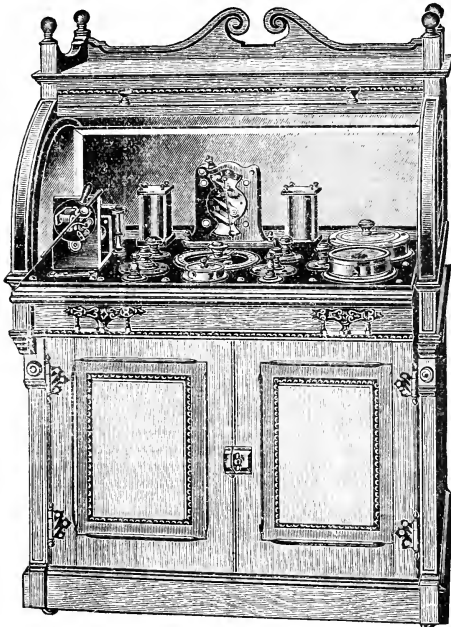
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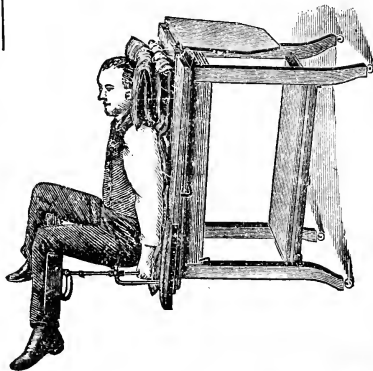
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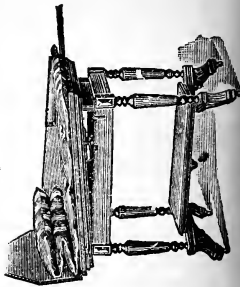
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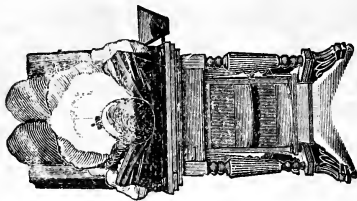
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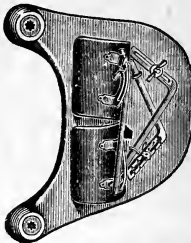
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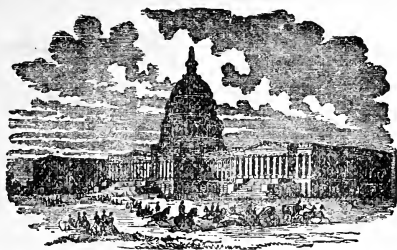
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Table of Contents.

Original Communications :

The Importance of Disinfecting the Bowel Discharges in Typhoid Fever— <i>A. R. Wilson, M. D.</i>	243
Strabismus; Its Effect upon Vision, Etc.— <i>H. L. Myers, M. D.</i>	247
A Peculiar Case Requiring Vaginal Hysterectomy.— <i>H. A. Royster, M. D.</i>	250
Ice Cold Applications in Acute Pneumonia.— <i>Thos. J. Mays, M. D.</i>	251
Exhibition of Cases Illustrating the Operative Treatment of Iliac (Spinal) Abscesses.— <i>James K. Young, M. D.</i>	259

Selected Papers :

Clinical Value of Renal Cast.....	264
Report on the Etiology and Prevention of Diphtheria.....	266

Editorial:

Announcement—The Journal a Semi-monthly	269
The State Board of Health.....	270
"Between You and Me.".....	271

Reviews and Book Notices :

The Weekly Review Visiting List for 1895.....	271
The Physician's Visiting List for 1895..	272
Hare's Text-Book of Practical Therapeutics.— <i>Hobart Amory Hare</i>	272

Landmarks in Gynæcology.— <i>Byron Robinson</i>	272
A Manual of Human Physiology.— <i>Joseph H. Raymond</i>	272
A System of Legal Medicine.— <i>Allan McLane Hamilton</i>	273
Essentials of Diseases of the Ear.— <i>E. B. Gleason</i>	274

Abstracts :

The Value of Mercury and Iodide of Potassium in Ophthalmic Syphilis, 268; Pathology and Treatment of Pelvic Abscess in Women, with Especial Reference to Radical Operation by the Vagina, 274; Hypnotics in Mental Diseases, 276; The Advantage of Atmospheric Distension of the Rectum, with Dislodgement of the Small Intestines, in the Bimanual Examination of Uterus, Ovaries and Tubes, 276; Treatment of Peri-uterine Inflammations, 277; Value of Coughing Taxis in the Reduction of Hernia, 278; The Interpretation of Water Analyses, 279; The Nose and Its Hygienic Relation to the Body, 281; Anti-toxic Action of the Liver, 281; Why People Become Deaf, 282.

Notes of Practice :.....	282
Miscellaneous Items.....	286
Reading Notices.....	290

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Index of Advertisers.

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Fairchild Bros. & Foster.....	Cover 1	University of Pennsylvania.....	14
Parke Davis & Co.....	" 1	Typewriter Headquarters.....	14
P. Blakiston, Son & Co.....	" 2	Angier Chemical Co.....	15
Harrison & Gray.....	" 2	University College of Medicine.....	15
Mr. Fellow.....	" 3	St. Luke's Home.....	15
The Arlington Chemical Co.....	" 4	Wilmington City Hospital.....	16
W. H. Schieffelin & Co.....	1	Mariani & Co.....	17
Cal. Fig Syrup Co.....	2	Walker-Green Chemical Co.....	17
C. F. Boehringer & Soehne.....	3	Frederick Stearns & Co.....	17
Sharp & Dohme.....	4	Thos. F. Goode.....	18
Henry K. Wampole & Co.....	5	N. Y. Pharmaceutical Co.....	19
Cuen & Co.....	6	Bartlett, Garvens & Co.....	19
McArthur Hypophosphite Co.....	6	Lambert Pharmacal Co.....	20
Purcell, Ladd & Co.....	7	Maltine Mfg. Co.....	21
Virginia Pharmacal Co.....	7	H. O. Hyatt, M. D.....	21
Antikamnia Chemical Co.....	8	Dios Chemical Co.....	22
M. J. Breitenbach Co.....	9	McIntosh Battery Co.....	22
H. A. Kaysan.....	9	Scott & Bowne.....	23
Chas. Marchand.....	10	Battle & Co.....	23
Wm. R. Warner & Co.....	11	Rio Chemical Co.....	24
Kentucky School of Medicine.....	12	Seaboard Air Line.....	25
Bellevue Hospital Medical College.....	12	Daggett Table Co.....	26
E. V. Richards.....	12	Peacock Chemical Co—Sultan Drug Co.....	27
Od Chemical Co.....	13	Harris Lithia Water.....	28
Julius Fehr, M. D.....	13	Terraline Co.....	29
University of North Carolina—Med Dept.....	14	Svapnia.....	30
Quaker City Baking Powder Co.....	14	C. N. Crittenton.....	30
North Carolina Medical College.....	14		

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SEASONABLE SUGGESTIONS.

With the opening of the winter season, and its attendant bronchial and pulmonary troubles, we are having from many sections, reports of a recurrence of the La Grippe epidemic which for the past six or seven years has afflicted the country.

This fact makes particularly pertinent a recalling of the salient points of Dr. V. W. GAYLE's paper published in the *Medical World* in the midst of La Grippe's most malignant visit. It will be well to note closely his recommendations and experience in connection with the recurrence of the epidemic which is now apparently upon us. He says: "This disease by proper treatment of an attack can be so modified as to be almost aborted. If not properly managed, influenza is particularly liable to grave complications, even in mild cases the tendency is towards prostration, and often the nervous shock is such as to materially debilitate the patient. Where there is much angina with acute bronchial irritation, the following is indicated:

R	Ammon. Chlorid.....	3 ij
	Potassii Chloras.....	3 j
	Tinct Ferri Chlorid.....	5 ij
	Syr. Simplex.....	3 ij
	Aqua.....	q. s. ft. 3 iv

M Sig.—Teaspoonful in sweetened water every four hours,
also apply to the throat with probang evry three hours.

Quinine is the best germ destroyer we have for the microbe of influenza. During the recent epidemic I aborted quite a number of cases with antikamnia and quinine in combination; also with antikamnia and salol. The relief obtained by the administration of antikamnia alone, where the cephalalgia was severe, as in the majority of my cases, was wonderful. When the pain seemed almost intolerable I have seen a ten grain dose banish it.

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Expectorants are often needed, and antikamnia should be administered with them, thus:

R	Antikamnia (Genuine).....	3 j
	Syr. Senega.....	3 j
	Vini Ipecac.....	3 ij
	Syr. Tolutan.....	q. s. ft. 3 iv

Mix and let stand until effervescence ceases.

Sig.—Teaspoonful every two hours.

The mild choride of mercury in minimum doses often repeated will be beneficial. The following prescription is a favorite of mine:

R	Hydrarg. Chlo. Mit.....	gr. j
	Sodii Bicarb.....	9 i
	Lactopeptine (Genuine).....	5 ss

M. ft. Chart No. X.

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Gayle concludes his paper as follows: "What is mostly needed is an antithermic analgesic to relieve the pain and reduce the fever. These properties are found in antikamnia. This with the germ destroyer quinine is all that I really needed in the treatment of this disease. I advocate the use of stimulants in nearly every case. They are frequently needed in the onset of the disease. Sprays of carbolic acid, turpentine or resorcin are frequently efficacious in the laryngeal troubles. The diet should be light and easily digestible. By careful attention and avoidance of exposure, together with the line of treatment mapped out, the vast majority of cases will recover. Of course, there are occasional cases which present symptoms which require other remedial agents, but these of necessity must be left to the discretion of the medical attendant."

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THE IMPORTANCE OF DISINFECTING THE BOWEL DISCHARGES IN TYPHOID FEVER.

BY ALBERT R. WILSON, M.D., of Greensboro, Superintendent of Health of
Guilford County, N. C.

(Read before the Health Conference at Salisbury September 13th, 1894.)

Mr. President, Ladies and Gentlemen :—
Those of you who had the good fortune to listen to the comprehensive, practical and lucid paper of Dr. Thomas during the forenoon, will have recalled to your minds by this paper many of the facts stated by him. However, the subject is so important that I deem it unnecessary to apologize for repeating them.

The importance of typhoid fever as a disease dangerous to the public health is recognized by all physicians who have given sufficient thought to its cause and the modes of its conveyance; but I am sure that this subject has not yet received the hands of the profession generally

the time and study which it deserves. If this be true as to the profession, then we can at once arrive at the conclusion that the general public has not the knowledge concerning this disease and its prevention which it should have. It is a disease which prevails widely in all temperate climates. Some idea may be gained of its prevalence in North Carolina when you are told that there has not been a month within a year, dating from the first of August, 1893, to the first of August, 1894, in which typhoid fever has not been reported from at least 13 counties. Beginning with the September *Bulletin*, 46 counties reported

typhoid fever, 54 in October, 51 in November, 47 in December, 24 in January, 19 in February, 13 in (each) March, April and May, 40 in June, 50 in July and 66 in August. You can see clearly that the disease has been continually with us for a year, and I doubt not that the reports for previous years would show it to have been present *all* the time in some one or other of the sections of our State.

When you are told or reminded of the fact that those between the ages of 15 and 30 years are most susceptible to this disease (although none are exempt from infancy to old age), and when you take into consideration that this is the most important and the most active part of man's life, then count the cost of sickness, death and burial and loss of time from labor and school resulting from it in the aggregate, and when you are acquainted with the fact that from each case of this disease an epidemic might have its inception, thereby striking down from 5 to 1,000 persons, you can readily see what an important relation it bears to the public health.

Now, if by any means typhoid fever could be prevented, or even restricted, what a stupendous amount of suffering, sorrow, loss of time and labor would be saved, and in its stead would prevail health, happiness and prosperity. Typhoid fever is a preventable disease, and in one instance, at least, experience has demonstrated that it can be practically wiped out. When a doctor speaks of a disease becoming epidemic the people at once want to know what causes it and by what means it is conveyed. We can spend a few moments profitably in considering this cause and how it produces epidemics. It is believed by the best authorities upon the subject that there is a specific germ which causes typhoid fever, while yet there are others

who do not. Typhoid fever is an infectious disease; if an infectious disease, then there must be an infective agent, and it has been proven that this agent, call it by whatever name you may, is always present in the intestinal canal of those sick of typhoid fever, and that it is present also in the discharges of these patients, and furthermore, that it has the power of reproducing itself outside of the human body. It is believed, and this belief is borne out by the observation and studies of some of the brightest and most logical minds in the medical profession to-day, that this infective agent, found constantly in the intestinal canal and in the discharges of typhoid fever patients, is the cause which produces the disease. By what means does this cause gain entrance into our bodies? Some authorities believe it to be feebly contagious and that nurses attending typhoid patients, handling the bed and body linen and the discharges without proper precaution, contract the disease. Epidemics of this disease have been caused by persons drinking milk contaminated by the typhoid germ. This may be brought about by the addition of infected water to milk for adulteration, or by washing the vessels used to contain the milk in infected water. Again, the cause is said to gain entrance into the system by the inhalation of particles of dust or air contaminated by it. The most common means by which the cause is conveyed and gains entrance into our bodies is through drinking water which is infected. Reservoirs of towns or cities may be infected and thus cause widespread epidemics. Wells may be polluted by drainage into them of infected surface water. Springs also, by having the discharges containing the infective agent washed into them by rains, or by percolation through the soil to the source of their water-supply.

I will relate to you the details of an epidemic caused by contamination of a spring which came under my observation this summer. Six miles north of Greensboro is a chapel, near which is a sluggish spring, situated at the bottom of a basin formed by surrounding hills. From the lay of the hillside forming this basin matter thrown on the ground at one point will be washed by rains directly into the spring or deposited in porous soil quite near it. If the matter be placed upon the hillside at another point, the drainage will not be directly into the spring, but whatever is washed down will be deposited above and about the spring. Situated near the top of one of the hills forming this basin is a cabin in which lived Mr. S—— and family, consisting of his wife, two sons and a young baby. This spring supplied the water for this family and the chapel. Mrs. S. was taken sick on May 2d, and went to bed with fever June 17th.

Dr. Schenck was called to see the family. Mrs. S—— was then in the beginning of convalescence, and from the history she gave the doctor concluded she had been sick with typhoid fever, which conclusion was proven to be correct by the sequel. Upon investigation it was found that the discharges from this patient were thrown upon the ground at both the points mentioned, though most of them were deposited, where the drainage would carry them directly into the spring, for the space of three weeks. Between the 10th and 20th of May there were frequent rains. The husband and two sons were sick with typhoid fever on June 17th, all three having been taken sick about the 8th or 10th of the month. A. S——, a niece, had been nursing her aunt, Mrs. S——, and had the premonitory symptoms of fever at the doctor's first visit, and was advised by him to return home, which

she did. June 23d she was sick with typhoid fever. On the 25th M——, a sister of A. S——, was attacked by fever. She had also been nursing her aunt. A. R—— attended service at the chapel during the week ending June 27th, and drank water from this spring. On the 2d or 3d of July he was stricken down by fever. L. J.—— also attended services at the chapel during the same week and drank this spring water. On the 9th she was also sick of typhoid fever. M. L.—— visited Mrs. S—— often during her sickness and drank water from the spring. The 20th of June found her in bed with typhoid fever.

Let us review this evidence hurriedly. There was a case of typhoid fever, the infected discharges thrown out upon the ground at points from which they could be washed directly into the spring or quite near to it. Rains to wash these discharges into and about the spring. Next, two young persons attending services at the chapel soon after these rains, and drinking water from the spring, were taken sick with typhoid fever. About the same time three members of the family using water from this spring were stricken with the disease. Next in order is a lady visitor to the house, who says she drank the water, and she, too, had fever. Finally, the two sisters who nursed their aunt and drank the water, were the last to sicken with the disease.

The chain of evidence submitted to you to prove that drinking water infected by typhoid discharges will produce an epidemic of this disease, I think is complete. A notable epidemic which I will merely mention was that which occurred at Plymouth, Pa., in 1885, caused by the discharges from one case of this fever.

How can typhoid fever be prevented or restricted is a question of great im-

portance to us all, not only as individuals and families and communities, but it is of such moment that it interests us as a State and a nation. The question will be answered by simply telling you to disinfect the discharges. If we had pure water, good sewers, good drainage, clean towns and clean homes, there would be less of this disease, certainly. This cannot be so as long as the typhoid discharges are thrown out undisinfected and the infective agent allowed to propagate and drain into and pollute our water-supply. You can see that all efforts tending to protect ourselves, our towns and cities by supplying good water, keeping clean homes and providing good sewers, are all subservient to the one vital point—the disinfection of the discharges. You have seen how one case could infect a spring and cause several cases; so one case could produce a thousand under favorable conditions, as was the case in the striking epidemic at Plymouth, where 1,000 were stricken and over 100 deaths occurred. Had the discharges in each of the cases cited been thoroughly disinfected and properly disposed of, these epidemics would have been averted. Recall to mind that each case may and can, under favorable conditions, produce an epidemic, and then think how prevalent the disease is and how little is done toward its prevention, and it is easy to see how liable we are to epidemics. What are disinfectants, and how can they be used effectively? A disinfectant is “an agent capable of destroying the infective power of infectious material.” The destruction must be thorough, for so long as there is vitality in the infective agent it will reproduce itself; therefore try to do thoroughly whatever is attempted in the way of disinfection. Bichloride of mercury or corrosive sublimate, chloride of lime and milk of lime or whitewash, are

the disinfectants recommended to us by our State Board of Health for the disinfection of discharges. There are other disinfectants, but these have been chosen for their effectiveness, cheapness and because, with proper care, anyone can use them.

There is a distinction which I wish to call to your attention, and that is the difference between a deodorizer and a disinfectant. Copperas is a deodorizer, one of the best, but it has been proven by experiment that a saturated solution of this substance does not “destroy the infective power of infectious material.” It is commonly used as a disinfectant, but as such, in the sense of the definition of disinfectant as given, it is useless, but as a deodorizer it is to be valued. Bichloride of mercury is to be used in solution in the proportion of 2 drachms to the gallon of water. This solution should be colored on account of its poisonous properties. The solution of chloride of lime is made by dissolving six ounces of it while fresh in a gallon of pure water. This solution should be prepared as needed. Milk of lime or whitewash is made by reducing to powder one quart of quick lime by the addition to it of one quart of water, then adding to the powder three quarts more of water. Store in a tight vessel till needed. Be sure your whitewash is fresh when you use it, and to insure this, make a new supply every few days. To disinfect the discharges, place at least a quart of either of these solutions in the vessel intended to receive the discharges, and see to it that the evacuation is well mixed with the disinfecting solution, and allow the mixture to stand from a half hour to an hour before emptying it into the water-closet or burying it, as the case may be. Preferably, in disposing of the discharges by burial, seek

to place them, if possible, where the soil will not likely be disturbed by upturning, not upon a hillside, and certainly not within 100 feet of any water-supply. These are practically the directions laid down by our Board of Health, and if properly carried out, along with subservient measures, typhoid fever will eventually be removed from our land. In the preparation of this paper I have availed myself of, and drawn upon, the best authorities at my command. In presenting it I have tried to set before you the important relation typhoid fever bears to the public health; to tell you

what is believed to be the cause of the disease; by what means it is conveyed into our bodies and how epidemics are produced by it; and finally, what is meant by disinfectants, and how to use some of them.

Much more could have been said upon each phase of the subject as presented, but if it has awakened an interest in, or stimulated a desire to know more about the subject, or convinced anyone of the great importance of disinfecting the discharges in this disease, it has accomplished good.

* * * * *

STRABISMUS; ITS EFFECT UPON VISION, ETC.

BY HARRY L. MYERS, M.D., Danville, Va.

I venture to say that there is no section of country which is exempt from this unsightly affection of the eye, and so serious are its consequences to vision, if treatment is neglected, that I have endeavored in this paper to bring the subject more prominently to the notice of the general practitioner, under whose eye these cases usually fall.

Strabismus—Squint, or, to use a more common expression, "Cross Eye," is an affection of the extra-ocular muscles, in which the line of vision of one eye deviates from the point of fixation.

The deviation may be inward, outward, upward or downward.

For the sake of brevity, we will consider this affection under two classes:

Class A—Paralytic Strabismus, in which the squinting eye is able to follow its fellow in all directions, save in the direction of action of the paralyzed muscle or muscles; when, if the paralysis is complete, the eye does not move, and

if incomplete, as is usually the case, it lags behind.

Class B—Non-paralytic, or Concomitant Strabismus, in which the squinting eye is able to follow its fellow in all its movements, the same degree of deviation remaining permanent.

We will dispose of the first class by simply mentioning some of its causes and symptoms, its diagnosis and treatment.

Syphilis is probably the most frequent cause—then, in regular sequence, diphtheria, rheumatism, injuries, and less frequently poisons, such as alcohol and lead, also diseases of the base of the brain and troubles with the spinal cord. The most important symptoms are: (1) Diplopia, or double vision—a very distressing one, unfitting the patient for his daily duties on account of the confusion caused by seeing everything double. This gives rise to the second symptom, vertigo, which in turn is followed

by nausea and vomiting in many cases.

(4) False orientation, or inability to properly gauge his movements, is another symptom which comes to light when the patient attempts to walk by the guidance of the paralyzed eye, the other being closed, and, in many cases, without the closure of the good eye. Objects are falsely located, and, as his experience, the faculty by which he has always measured the amount of innervation necessary to direct the eye to any point, has been rendered faulty by the paralysis, he sends an excessive amount of innervation to the affected muscle, and is consequently guided, by the false impression produced, beyond the object aimed at.

The patient soon realizes, however, that he can dispel these annoying symptoms by closing the affected eye, and thus very often neglects having the condition treated until it is too late to be remedied.

The diagnosis between this class and class B can be easily determined by the simple experiment which Fuchs, in his Text-Book of Ophthalmology so well explains that I will quote from him:

"We cause the patient to fix his gaze upon an object which we have placed in the median line between the two eyes, and at a distance from them of some metres. Suppose that the left eye fixes correctly, while the right eye squints inward. We then mark by an ink-dot upon the border of the lower lid the position of the external margin of the cornea in both eyes. We next cover the left eye, which is doing the fixation, with a screen, at the same time telling the patient to try to find the object again. He does so now by using the right eye for fixation, and for this purpose brings it into the correct position by a distinctly visible movement of redress. We now once more mark the position of the outer margin of the cornea of this eye by a dot upon the lower lid; the distance between this and the first dot

made is the linear measurement of the strabismus deviation and is called the *primary deviation*.

"As the right eye is being brought into the position of fixation, the left eye moves inward behind the screen; it is now in a position of *secondary deviation*.

"Now, in paralytic squint, the secondary deviation is always greater than the primary, for reasons already given under False Orientation.

"In concomitant squint the primary and secondary deviations are equal. Thus the diagnosis is made."

The treatment of paralysis of the ocular muscles consists in (1) removal of cause; (2) full doses of potassium iodide; (3) strychnia in proper cases; (4) electricity; (5) tenotomy and advancement of the tendons of the proper muscles; (6) tonics.

Class B—Non-paralytic or concomitant squint. It is of this class that I wish to speak more particularly.

It may be periodic or constant, alternating or monolateral.

Convergent squint develops early in life just as soon as the child begins to use the accommodation for long periods—generally between the second and fifth year. It is the result of an insufficiency of some of the eye muscles due to a faulty relation existing between accommodation and convergence. This in turn is dependent upon errors of refraction. Opacities of the refractive media and intra-ocular disease are also causes. To consider these causes fully would require more space than could be given to this article; hence we will simply say that far-sighted people, whose eyes are too short in the antero-posterior diameter are compelled to use a very strong effort of accommodation in order to bring rays from an object to the proper focus on the retina, and as the amount of convergence is dependent upon the strength of the effort to accommodate, the internal ocular muscles of this class of

patients are abnormally innervated and developed, and if the internus of one eye is intrinsically weaker than its fellow, this eye will squint inward.

The onset of this trouble is generally very gradual. The child will sometimes, when looking at near objects, be seen to turn one or the other eye inward, and at other times the eyes may appear perfectly straight—periodic squint.

The parent, seeing the squint disappear, consoles himself with the fact that it is only sometimes that the child squints, and he is not even certain about that, and thus the case goes on until, finally, the squint becomes permanent. This state of affairs, aside from the mortification it naturally gives the parent, renders the child sensitive. He no longer cares to participate in childish amusements, but retires into the background, where he is safe from the jeers and criticisms of his associates. This makes him morose, and his defective vision handicaps him in his studies, until, after awhile, he gets the unenviable reputation of not being "bright." But this is not the worst feature—the mind, realizing that both eyes cannot be used together without confusion, excludes one eye from work altogether (this explains why patients in Class B do not have diplopia), and, as a consequence of this exclusion, the inactive eye becomes amblyopic, i. e., its visual acuity becomes very much diminished, and may be lost altogether; hence the importance of early treatment in strabismus.

Divergent squint usually accompanies myopia, or near-sight, rarely coming on until after childhood, but in youth, when myopia develops. This form may be explained on the same principle as the convergent variety, i. e., myopes, whose eyes are too long in the antero-post. diameter, require very little or no effort

to accommodate, and hence the impulse to converge being slight, the externi have full sway and divergent squint results. The same evil consequence as to vision would, of course, result in this, as in convergent squint.

This form, however, may never become constant—it is usually periodic. As to intra-ocular disease and opacities of the media being causes of squint, the explanation is simple—the eye naturally adapts itself to the position in which a ray of light can enter and fall upon a healthy part of the retina.

The treatment of this class may be divided into operative and non-operative. The first method often achieves good results in convergent squint, as this depends upon the removal of strain upon the accommodation, which can be done by the instillation of atropine and the correction of the refractive error by a proper glass.

In very small children, who are too young to wear a glass, good results are sometimes obtained by keeping the accommodation suspended for a long time, often months, with atropine, at the same time causing the patient to use the affected eye by binding up the fixing eye for a half hour every day. However, as soon as the child is old enough to wear a glass, it should be prescribed.

As children sometimes, though rarely, "outgrow" their squint, it would probably not be wise to operate before the fifth or sixth year. Though I have seen excellent results from operations done at a much earlier age.

Operative treatment is always necessary in divergent squint, and experience has proven that few cases of the convergent variety will yield without it.

As to the method, my preference is for graduated tenotomy, which, in many cases, must be supplemented by advancement of the weaker muscle. This is

especially necessary in old and neglected cases.

Graduated tenotomy, according to Stevens' method, will, however, in the majority of cases, give pleasing results. The eyes can be made straight in several sittings—sometimes in one, and in many

cases where the vision has not become too defective, good results may be expected in this particular, also. After the eyes have become straight, they should have daily exercise in order to re-establish binocular vision.

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A PECULIAR CASE REQUIRING VAGINAL HYSTERECTOMY.

By H. A. ROYSTER, M.D., one of the Resident Physicians, Mercy Hospital,
Pittsburgh, Pa.

(Service of X. O. WERDER, M.D., Gynecologist to Mercy Hospital.)

The operation of vaginal hysterectomy has been performed for various conditions. It is most frequently demanded in beginning malignant disease of the uterus, and has in this instance superseded French's original method of removing this organ by the abdominal incision. The womb has been removed *per vaginam* to obtain relief from an obstinate prolapse and as a means for the only perfect cure of severe forms of gonorrhœal endometritis. Recently vaginal hysterectomy (which Skene characterized as, "according to Schröder's own statements, destined to become a rare operation") is done for almost any form of pelvic inflammatory disease, especially by those operators who regard the uterus as the primary source of infection in all cases. And, very recently, we are told that the days of abdominal section for pelvic disease are numbered; a fact which, if true, will still further popularize the operation of removing the uterus with its adnexa by the vagina.

The following case presented an interesting condition calling for this operation:

Mrs. L. G——, 29 years of age, has been married nine years and has borne three children. Her menstrual function

began at the age of 14 and has been attended with regular and painless periods until recently. Upon leaving her bed (probably prematurely) after her last confinement, two years ago, she noticed that she had a "falling of the womb." She suffered from this for over a year—pain, bearing down, leucorrhœa, etc. On the 3d of August, 1893, just a year before her admission here, she went to a hospital in a neighboring city where she underwent an operation for the prolapse. This operation, which, as far as could be learned, consisted in some method of suturing the vaginal walls, proved to be a septic one, blood-poisoning setting in on the third day, with fever and delirium. According to the patient's story, there were "blue patches" on her arms and abdomen. As a result of all this a recto-vaginal fistula was formed at the site of the operation, the uterus lost its support again, and sank down into the fistulous opening, where it was anchored by strong adhesions. Fortunately, the patient recovered to such an extent that, in January, 1894, there was attempted at the same hospital a second operation, in which the vaginal walls were stripped up and re-sutured. Since March she

has felt worse and her menses have been very painful.

The above history was obtained from the patient at the time of her admission to the Mercy Hospital, August 12th, 1894. She had come to submit to any measures, operative or otherwise, that would give her relief.

Physical examination revealed a very peculiar state of affairs. The vagina was very small and shallow—hardly more than an inch in depth—its walls being made up almost entirely of scar tissue which had contracted within very narrow limits. At the upper posterior part there was an opening about the size of the little finger-tip, through which could be felt the anterior lip of the cervix. This was the only means of communication between the uterus and the vagina—the only point which had not been closed by the cicatrization. The womb itself was retroverted and retroflexed. It was impossible to make out the ovaries and tubes by bimanual examination.

Operation: August 16th, 1894. An incision was made around the cervix through the almost obliterated vaginal orifices and an effort first made to free the uterus from the false attachments and restore it to its original position. But, on account of the dense scar-tissue

and the malposition of the uterus, it was thought best to remove the organ. Vaginal hysterectomy, after the multiple clamp method, was performed according to the usual procedures, the dissection being somewhat difficult on account of the altered anatomical relations. The uterus was found to be enlarged and markedly retroflexed at the cervical junction—the adnexa normal.

The after-treatment was very simple. As is usual in these cases, the patient's convalescence was easy and free from constitutional disturbance. There is generally little danger to be feared from sepsis. The greatest trouble at first is the intense pain caused by pressure of the clamps—frequently so great as to require morphia to be given hypodermatically. This remedy was withheld in this case and the patient went bravely through without it.

The clamps were loosened the next day and removed at the end of 48 hours. In a week the gauze packing was taken out and the vagina gently irrigated with a weak bi-chloride solution. Vaginal douches were then given daily as required for cleanliness. The patient's temperature reached 100° on the second day, decended gradually within two days and remained at the normal for the rest of her three week's stay in the hospital

ICE-COLD APPLICATIONS IN ACUTE PNEUMONIA.

By THOMAS J. MAYS, A.M., M.D., Philadelphia.

Professor of Diseases of the Chest in the Philadelphia Polyclinic, and Visiting Physician to Rush Hospital for Consumption.)

(Read before the Philadelphia County Medical Society, September 26, 1894.)

While cold applications in the treatment of pneumonia are by no means a new procedure, I am of the opinion that this has not yet received the considera-

tion and extensive introduction which it merits, and in saying what I have to say to-night I trust that I am loyal to that spirit which prompts one to conservatism in the commendation of any curative measure until it has stood the test of experience. When, however, one has observed the magic changes which follow in the pneumonic condition under the beneficent influence of cold locally applied, as has been done by others as well as by myself on numerous occasions, I feel that this method has passed the experimental stage of clinical medicine, and I therefore hope that you will pardon me for appearing obtrusive when I again direct your attention to this subject.

Cold has been employed in the treatment of pneumonia for various purposes and in various ways. Jürgensen believes that the chief danger in this disease arises from the high fever, and which finally leads to cardiac failure. He appeals to the experiments of Zenker and others to show that high fever is detrimental to the fibres of the heart-muscle and to those of the voluntary muscles. He therefore recommends cold principally with a view of reducing the pyrexia. It is a question, however, whether a high temperature of itself is more fatal in pneumonia than a low one; but this is a point which will be referred to later on. So far as I know Niemeyer was the first to apply cold immediately to the chest for the purpose of reducing the activity of the local inflammatory process in the lungs.

It must be seen that these different views govern the practitioner in the mode of applying this remedy. If he believes in the constitutional nature of the disease, and especially if he thinks that the high fever endangers the integrity of the heart-muscle, his principal aim is to reduce the fever at large, and to accomplish this he immerses his pa-

tient periodically in a cold bath, which is done by Jürgensen and others. If he holds that the local trouble in the lung is responsible for the high fever, and that this constitutes the vulnerable point in the disease, he will pay less attention to the general condition and make his cold applications directly over the inflamed lung.

I believe that much of the ill-success which has followed the use of cold in pneumonia is attributable to the fact that it was employed according to the first method. The pyrexia of pneumonia is not the same as that of typhoid fever, or at least it does not yield to cold in the same way as that of the latter does. The former is best subdued by cold being applied directly over the affected lung as well as to the head, and general baths or spongings do not seem to be essentially indicated, and if the latter are applied they do not keep the fever down for any long period. If the fever and a great deal of the constitutional disturbance of pneumonia depends on the inflammatory process in the lung, then an abatement of the pulmonary disorder will strike at the very root of the difficulty, and it is clear, too, that the measure which accomplishes this must be applied continuously and persistently, and not like in typhoid fever, at stated intervals. Moreover it is a hazardous procedure to subject a pneumonic patient to the bodily changes and cardiac strain which are incidental to the giving of a general bath. It must be remembered that the heart is always implicated in pneumonia, and is therefore a weak and easily assailed organ.

How, then, is the cold to be applied, and how long must it be continued? The affected area must be surrounded with ice contained in bags which are wrapped in towels. If the disease is confined to the front base on one side,

one good-sized bag will suffice; but if the exudation extends to the side and back, then at least one more bag must be applied laterally and as far back as possible. If the affection is extensive, put on as many ice-bags as are necessary to cover the whole area. Watch the morbid process, for it is very apt to migrate from one spot in the chest to another, and if it does so, follow it up with the ice-bag.

The length of time for which cold is to be used must, in most cases, be decided by the amount of fever which is present. If this falls to or near the normal point, and shows a tendency to remain there, then the ice may be gradually removed. It is best, however, not to be in too much haste in withdrawing the cold, for frequently before this is off very long the temperature suddenly flies up again. If this takes place, and the temperature remains high after the ice is reapplied for some time, it is a possible indication that the inflammation has invaded a new field, and is not active in the old one. This has happened several times in my experience.

It must always be borne in mind, however, that the ice is not solely employed for the purpose of reducing the fever, but rather with the object of circumventing the exudative process and of hastening resolution in the affected part. There may be very little fever present in some cases of pneumonia, as in the aged, yet the destructive changes are going on in the lungs at a rapid rate. In senile and latent pneumonia the activity with which the ice is employed must be governed entirely by the impression which is made on the pulmonary disintegration. This must be the objective point and not the temperature.

This brings me to say something on the fever in pneumonia as a prognostic sign. Although a temperature of 105° F.

is generally more dangerous in the adult than one of 102° , I really believe that this is an error. When the fever is excessive, as when it rises to 107° or 108° , every one admits that this is almost necessarily fatal; but it must also be granted that a markedly low pneumonic temperature, as, for example, 95° or 96° , is equally fatal. The safety point, if such there be, lies somewhere between these extremes; and within a certain range I think we can look upon this fever as an indication of the degree of vital resistance which is present in the body. If it remains between 104° or 105° , the prognosis is good, provided other conditions are equal; but if it is either very high or very low, it is evidence of serious exhaustion and of vital inadequacy to cope with the destructive forces.

This opinion is partly confirmed by the high authority of Dr. Wilson Fox, when he says, on page 352 (*Diseases of the Lungs and Pleura*), that "the extent of the pyrexia has a less unfavorable influence on the prognosis than might be expected." Out of a total of 353 cases he shows, on the same page, that the mortality from 107° to 110° was 100 p. c.; from 106° to 107° , 42.8 p. c.; from 105° to 106° , 18 p. c.; from 104° to 105° , 7.4 p. c.; from 103° to 104° , 17.6 p. c.; and under 103° , 36.9 p. c.

What, now, is the local action of cold on the pneumonic process? This, I believe, consists in its powerful influence on the pulmonary capillaries and in its ability to resolve the exudate and infiltrate. It is well known that the most apparent lesion in acute pneumonia is an enormous distention of the pulmonary capillaries, with partial or complete stasis of the blood in these vessels, exudation of fluid constituents of the blood and proliferation and accumulation of epithelial cells and diapedesis of white and red blood-cells in the alveoli and

bronchioles. Now, it is well known that cold has the power of contracting blood-vessels, and from this action it can be understood why it should be of benefit in pneumonia. But how it can dissolve an exudate or an infiltration, is not so clear to me. That it accomplishes this I am firmly convinced. For example, there is a pneumonic area which is wholly devoid of vesicular sounds, and has a flat percussion note and bronchial breathing, indicating beyond doubt that the process has passed beyond the stage of engorgement and into that of exudation or of infiltration, yet the application of ice to this spot will, in a remarkably short time, develop a new group of physical signs, such as crepitation, reappearance of the vesicular murmur, diminution of flatness, etc. This has not only been observed by myself over and over again, but is also dwelt on by Dr. Lees, who had an extensive experience in the use of ice in this disease, when he says (*Lancet*, November 9, 1889, page 894): "In many cases I noticed a striking arrest in the development of the physical signs," and that the ice-bag "distinctly tends to repress the inflammatory process in the lung."

Is the ice treatment applicable in croupous or in acute catarrhal pneumonia, or in both forms of the disease? In my earlier experience I was inclined to believe that it was only adapted to the treatment of the croupous variety, but further familiarity with the measure taught me its use in the acute catarrhal form. I have also given it a trial in chronic broncho-pneumonia and in pulmonary phthisis, but with rather indifferent results, if not with positive harm in some cases. I must admit, however, that in several cases of this kind it seemed to do exceedingly well. It must be borne in mind, too, that the ice-bag is strongly recommended by the late Dr.

Brehmer and by Dr. Detwiler and others in the treatment of chronic lung trouble, and with such excellent testimony in its favor it is very probable that many of us do not yet understand the specific indications for its use.

Besides being useful in croupous pneumonia and in acute catarrhal pneumonia, it also has excellent effects in the capillary bronchitis of infants and in the catarrhal pneumonia which follows measles, diphtheria and scarlet-fever.

It is also desirable in this connection to say something regarding the heart in this disease. From the tenor of much that is said and written on pneumonia at the present time, one receives the impression that more is to be feared from cardiac than from pulmonary failure. That the heart's function is impaired no one will, I think deny. Indeed, this could not be otherwise, for the heart and lungs have a common nerve supply, are bound closely together by the pulmonary blood-current, and whatever invalidates one must also affect the other; but I believe that the doctrine that pneumonia becomes fatal because the heart is unequal to the work of forcing the blood through the engorged lungs, and all that we are required to do is to stimulate and to goad this organ, unmindful of what is going on in the lungs, is as imaginary in its conception as it is fatal in its practice. The pulmonary circulation is undoubtedly obstructed, and there is no question but that the heart chafes, frets and becomes seriously embarrassed. Dr. Wilson Fox (op. cit. p. 285) says that "one of the most important consequences of pneumonia on the circulation is the occasional occurrence of thrombosis in the pulmonary vessels leading to the affected part. This event, caused, in all probability, by the retarded circulation in the lung, is not uncommon, and may, by extending

to the larger branches of the pulmonary artery, be a source of immediate danger from sudden death, and may also, in great probability, retard the process of resolution and the subsequent convalescence." But is this any reason why we should whip up this organ in the hope that it may perform an impossible task, and stand by and do nothing to alleviate the blockade in front? Is this sound sense or physiological reasoning? No. We must discard this cart-before-the-horse theory, and make strenuous efforts to remove the difficulty in the lung, and in this way liberate the heart from its entangled situation. To accomplish this very end there is no measure more efficacious than ice, and besides removing the engorgement, and even the exudation in the affected lung, it also acts as a powerful stimulant to the heart's function. Indeed, it is chiefly for its serviceable influence on the heart that the ice-bag is recommended in chronic lung diseases by Dr. Brehmer and others.

In conclusion, I beg to say that the external application of cold in typhoid fever has reduced the death-rate from this disease to almost nothing, and I am sure it is not too much to presume that the same remedy, although differently applied, will do the same in the case of pneumonia. My opinion is based on what I have seen in my own practice and in that of others. In my collective report of 50 cases from various sources (see *Medical News*, June 24, 1893) there were two deaths. Since the publication of this list I received abstracts of 17 other cases treated by Dr. Jackson, of Brockville, Ontario, together with 7 cases collected by myself, without a death, neither the histories of which, nor those of Dr. Jackson, had I time to write out since receiving the kind invitation from your Board of Directors to prepare a paper for this evening—making in all 74

cases of pneumonia treated with cold applications, and two deaths; or a death-rate of 2.70 p. c.

Now the death-rate from pneumonia, when treated according to the current methods, is variously estimated from 20 to 30 p. c., hence the results from the cold-water treatment are at least ten times better than those which are obtained by other methods. (In addition to the ice, most of the patients received quinine, acetate of ammonia mixture, strychnine, digitalis, morphine occasionally, a nutritious diet, etc.)

DISCUSSION.

Dr. Alfred Stengel: I disagree entirely from Dr. Mays as regards the heart in pneumonia. I have seen a considerable deal of pneumonia clinically, but a great deal more pathologically. I have not made a post-mortem in pneumonia in which I did not find some cardiac thrombosis. I have seen the thrombosis of such a character that it was difficult to imagine how any circulation could be carried on during the last moments of life. Of course in some cases it is difficult to determine whether the thrombi are ante-mortem or post-mortem, but in most cases the manifestly ante-mortem character of the thrombi shows that the heart must have been seriously embarrassed. It is certainly the opinion of most authorities that the heart is seriously embarrassed, and post-mortem experiences would indicate the same thing.

Dr. J. M. Anders: I was somewhat astonished to hear the reader of the paper take the position that the fever in pneumonia was in all probability the result of the localized inflammation. The localized inflammation may, to some extent, show the degree of infection, but its presence does not prove that this is not an infectious disease. I should incline to the view that the temperature

is an indication of the severity of the type of infection, and not of the severity of the local inflammation.

I am always glad to hear a paper on the use of cold. Cold, whether locally or generally applied, can have but one effect in this disease, and that favorable. If applied locally, as suggested, it would undoubtedly mitigate, to some extent, the local inflammation, but it could not in an acute infectious disease control to any extent the course of the ailment. I do not believe that there is anything that will entirely control the course and symptoms of pneumonia, simply because it is an acute, infectious, self-limited disease. The local use of cold cannot meet all the indications in a case of pneumonia. It is well enough in a mild case, where the respiration is ordinarily good, the temperature only moderately high, and there are no nervous symptoms, but in a severe case the cold or tepid bath meets many more indications and is more efficacious. One of the reasons for the bad respiration is the presence of pain, hence this should be gotten rid of early. The local application of cold does not influence the respiration of a patient suffering with pneumonia, in my experience; whereas the cool or tepid bath stimulates to deeper respiration and assists expectoration. Its effect on the nervous system cannot be overestimated. I shall not go into the subject in detail. It is scarcely necessary; but it is bad practice, I think, to rely upon the local use of cold, which meets but a single indication, when we have at hand the cool or tepid bath, which meets so many and such as are of vastly more importance than the mere combating of local inflammation to the welfare of the patient.

Dr. B. F. Stahl: I am interested in the use of cold in the treatment of pneumonia, and especially so after con-

siderable experience with application of baths in the treatment of typhoid during the past few months. I recognize that the general application of cold water is productive of rest and of better respiration, and it has a general tranquilizing influence by its reduction of temperature. I am led to anticipate that its application in pneumonia will be advantageous. I freely admit, however, that I have had no direct experience in the use of local application of cold in pneumonia. I am ready to try it in any case where it may be applied generally or in the form of a bath, and I believe that we may expect decided advantages from its use.

Dr. Lawrence Wolf: I have had some experience with the use of cold in pneumonia. A couple of years ago I employed the cold bath in the treatment of pneumonia in my hospital cases, but the results were not as favorable as with other methods. I have used the local application of cold with more advantage. Dr. Da Costa taught many years ago that the ice poultice was one of the best applications, and relieved pain better and stimulated respiration perhaps better than any other application. It has been productive of great good in my hands.

Dr. John Aulde: My object in speaking is rather to make a suggestion to the reader of the paper in order to establish some physiological basis which may be of further value as indicating the effect which cold applications produce in pneumonia. The empirical deduction as to the value of ice in pneumonia seems to be fairly well founded, and would have been accepted ten or five years ago as very good evidence, but at the present time it seems to me that something more is demanded. It is hardly worth while now-a-days to speak of "vital force," because we can go closer to life than

that term would indicate. The use of the cold bath in typhoid fever has been referred to and its virtues highly lauded. If the cold bath is useful in typhoid fever we should be able to make some observations which would give us some exact idea of the effect which it produces. It would surprise you if I were to prophesy that within two or three years some one would come before this Society and advocate the use of massage in the treatment of pneumonia. It is only a few months since that a paper was published by Dr. Mitchell, of this city, referring to the wonderful effect of massage in anæmia, showing that it increased the number of red and white corpuscles.

In pneumonia we have rather a peculiar condition, different from that seen in typhoid fever. Dr. Osler has made some observations on the changes in the blood in this disease. He found that shortly after the leucocytes began to increase in number there was a deference, and a favorable change took place. If the number of leucocytes is large, that is, if a general leucocytosis takes place, he is able to say that the patient will recover, even if the temperature has not changed. In typhoid fever there is no leucocytosis, but it seems probable that in typhoid fever the cold bath is sufficient to produce an artificial leucocytosis. Consequently, if the cold bath is valuable in that disease, it seems probable that it may produce the same effect in pneumonia, where there is a natural tendency to leucocytosis.

I would suggest that the blood be examined in cases where ice is applied. If it can be shown that the effect of cold is to increase the number of leucocytes, we shall have a definite basis on which to rest our conclusions.

The President, Dr. De Forest Willard: I would ask Dr. Aulde if Dr. Mitchell did not subsequently explain the in-

crease in the number of corpuscles found, not by an actual increase in the number of blood-disks, but by the fact that corpuscles lurking along the circumference of the vessels were brought into the current by the massage, just as the logs along the banks of a lumbering stream may be forced into the current?

Dr. Aulde: Of course, we are not assuming that there is an increase in the number of corpuscles *de novo*. If those out of the current are brought into the stream by the contraction of the vessels, it is substantially the same thing. This brings out the leucocytes that are instrumental in maintaining the antiseptic condition of the blood, and with the contraction of the blood-vessels, produced by the cold, the red corpuscles carry oxygen to the tissues and take away carbonic acid and other waste products.

Dr. Mays: Dr. Aulde seems to lay great stress on the fact that the leucocytes are present in pneumonia. Leucocytosis is present in many conditions, both normal and pathological. Every time you take a drink of beer or eat a beefsteak, or take bitters, leucocytogenesis is increased. I do not think that the fact that the number of leucocytes is increased is of any great advantage in the successful treatment of pneumonia.

Dr. Stengel referred to the presence of thrombi in the pulmonary blood-vessels of pneumonia, and I think I must have read my paper to poor advantage if I have not succeeded in making plain my belief in the existence of this condition. Indeed, I invoke the high authority of Dr. Fox to show this. I think my intention has been misconceived by Dr. Stengel. The point that I tried to make clear was that this thrombosis leads many practitioners to try to whip up the heart to perform the impossible

task of pumping blood through this thrombotic condition of the vessels in lungs. They do not pay any attention to its removal in their treatment. The patient dies, and they believe that he dies because the heart has failed to perform its duty, while in truth death is caused by pulmonary failure.

I know that Dr. Anders has made use of cold, and I think that his results were rather favorable. He speaks of the fever as an indication of the extent of the infection. If by infection he means the amount of disease in the lung, I can hardly indorse the statement. I have in some of my cases seen high fever where there was small amount of infiltration. In one case particularly, seen three years ago, the amount of infiltration at the base of one lung was so slight as to be detected with difficulty, yet that patient had a temperature of 106° and 106.5° , and died in eight days. I did not apply ice in that case, for I did not then know its great value. I wish that I had, for I believe I would have saved the life of a dear friend. I infer from what Dr. Anders has said that he has not applied ice assiduously and per-

sistently, for had he done so, I think that he would not have said that he could not control the respiration in pneumonia by the application of cold. I expect in every case where ice is applied to have the temperature fall, the pulse fall and the respirations fall. I do not think that the use of tepid, or even cold baths are of service in pneumonia. The fever in pneumonia is different from that in typhoid fever. It does not yield to general cold as does the fever in typhoid. I think that if the prejudice against the application of ice would be removed this treatment would be more thoroughly tried. I think that it will be found to be the most applicable and most efficacious treatment for pneumonia. This has not only been my experience, but also that of others. It has been almost universally successful; in 74 cases there having been only two deaths. I do not say that this proportion will be maintained, but the treatment certainly has a great influence upon the local process in the lung. It circumscribes and absorbs the exudation in the lung, and this is as much as can be expected from any measure.

EXHIBITION OF CASES ILLUSTRATING THE OPERATIVE TREATMENT OF ILIAC (SPINAL) ABSCESES.

BY JAMES K. YOUNG, M.D., Philadelphia.

(Read before the Philadelphia Surgica! Society, October 10, 1894.)

These cases illustrate the operative treatment of iliac abscesses of spinal origin:

Case 1.—Martin W., white, male, aged four years.

Family history: Negative.

Past history: Natural birth. At ten

months, croup. At four years, brought to University Hospital Dispensary, having suffered for six weeks with pain in left thigh. During this period he has had a limp, and has been supposed to have had rheumatism. He has had night cries.

Mensuration showed:

Length—R.L. 18" Circ. @ 3" = $9\frac{1}{2}$ @
5"— $10\frac{3}{4}$ R. calf = $7\frac{3}{4}$ "
L.L.— $17\frac{3}{4}$ " @ 3" = $9\frac{1}{2}$ @ 5—
 $10\frac{3}{4}$. L. calf = $7\frac{3}{8}$ ".

Diagnosis at this time was doubtful, the psoas irritation resembling *incipient coxalgia*. Later *lumbar Potts* was indicated by the characteristic posterior deformity.

At 5 years of age, in January, 1894, had chicken-pox and "grippe." At this period the kyphosis was slowly enlarging. The child had been wearing a Taylor spinal brace for four months. The brace being out of order, the child was put to bed at the end of January, 1894. The day after removal of the brace a tumor appeared in the left groin.

February 5, 1894.—Admitted University Hospital. Examination shows the tumor in the left groin to be above Poupart's ligament just internal to the anterior superior spinous process of the ilium. It is a fluctuating swelling, easily distinguishable from a hernia, to which it has a superficial resemblance. The patient's back shows a slight kyphosis involving the second and third lumbar spines.

Diagnosis: Pott's disease with slight kyphosis and coexistent with ilio-lumbar abscesses. Operation by Dr. De Forest Willard on day of admission. Ether anæsthesia. Abscess cautiously opened; much pus evacuated. Counter-opening made in back and rubber drainage passed through.

9th—Discharging freely.

10th—Temperature $102.3-5^{\circ}$ Enema followed by drop in temperature.

22d—Temperature still hectic. Sinus washed out with peroxide of hydrogen and sublimate solution.

24th—Onset of measles. Isolation.

March 16th—Out of quarantine.

29th—Plaster jacket. Discharge has lessened.

April 20th—Back and groin healed; is up in chair.

May 16th—Cast removed; brace applied; child walks.

23d—Discharged well.

Case 2.—Raymond C., aged 4 years; American.

Family history: Maternal grandfather died of phthisis.

Past history: First symptom noted by mother in April, 1893; child waking screaming and rigid at night. Three weeks later a severe chill, accompanied by muscular spasm.

Previous treatment, the application of a liniment advised by a physician.

Examination shows marked lordosis.

Treatment: The application of a Taylor brace and syr. hypophosph. sim., drachm j., t. i. d.

Diagnosis: Lumbar Pott's disease.

Present history: Admitted to University Hospital, July 15, 1894. Patient complains of pain in sitting posture. The spine is still arched. There is distinct fluctuation in left iliac region, which is slightly prominent and may be said to be pointing just above Poupart's ligament. This abscess is probably of vertebral origin.

Operation: Operation by Dr. James K. Young, July 20, 1894. Incision in line with Poupart's ligament along its outer third. Pus evacuated. Counter-opening a little above sacro-iliac junction. Antiseptic precautions; iodoform dressings.

For these notes I am indebted to Dr. Joseph M. Spellissy, Assistant Surgeon in the Orthopedic Dispensary.

I had intended reporting a similar case which occurred in private practice, in which Dr. Willard, Dr. Ashhurst and myself were associated. In this case it was considered advisable to either tre-

phine the upper part of the crest of the ilium or remove a portion with a rongeur forceps, so as to permit the drainage-tube to lay flat in the iliac fossa. The latter was done, and appeared to facilitate the drainage and healing of the abscesses rather than retard them.

The frequency of these abscesses is well shown in Michel's statistics, in which out of 48 abscesses of spinal origin, 39, or 70 p. c., were in the pelvis.

In regard to the treatment, the opinions of authorities range from extreme expectancy to early and radical operation.

Two plans of treatment are offered: that of expectancy and that of incision and drainage. Cases are recorded in which, under expectancy, recovery has ensued; notably one each of Dr. Taylor and Bradford and Lovett, and I have one now under observation in which absorption appears to have occurred.

There are two other methods to which attention must be called:

1. Repeated aspiration.

2. Injection of fluids to promote absorption.

The former is unsatisfactory on account of non-withdrawal of caseous clots, and the latter dangerous, and in some cases fatal, from absorption of carbolic acid. The objections to the early radical operations, especially erosion of vertebrae, is the high mortality, and Dr. Rupprecht, of Dresden, informed me six years ago that after a fair trial he had abandoned the radical operations, because 50 p. c. died from the operation. The operation here advocated is performed under strict antiseptic precautions. The abscess is opened by careful dissection, it is thoroughly irrigated with boiled water and boric acid solution, a long, grooved director is passed up to a point above the sacro-iliac juncture, and a straight, longitudinal incision is made upon it. A rub-

ber tube is passed through and secured with safety-pins.

Emulsion of iodoform (10 p. c.) $\frac{3}{4}$ ss is thrown in, iodoform gauze packed about the wound and a bichloride dressing applied.

Indications: The indications for the operation are: (1) where the abscess is large and making pressure upon important organs; (2) where the abscess is increasing rapidly in size; (3) where there is danger of rupture of the abscess into the peritoneal cavity.

DISCUSSION.

Dr. William J. Taylor: I wish to thank Dr. Young for bringing these cases for us to see. I have used this method of treatment several times in the last year with good results. There is one point to which I desire to call attention, and that is that, instead of the curette, I have used with advantage pieces of gauze on long forceps, and swabbed out the whole interior of the abscess. In that way you remove a large amount of granulation tissue containing tubercle bacilli. With this method I use thorough flushing with plain boiled water, the water being allowed the flow while the gauze-curette is being used.

With regard to the length of time that the drainage-tube is allowed to remain, my experience is that the sooner you get rid of the drainage-tube the better. With the method to which I have alluded I find that within a week, sometimes in a few days, I can remove entirely the drainage-tube, and, although there is some discharge, the amount is small and the recovery is rapid, considering the extent of the disease.

Dr. G. G. Davis: I think that the question of operation depends upon the peculiarities of the case. I should be inclined to leave the abscess alone where I thought it was not enlarging, or that

it would ultimately be absorbed. I think that it is hopeless to attempt to cure them by any direct action upon the diseased part. As Dr. Young has said, the attempts in the way of curetting have been failures, and any operative procedure that attempts to eradicate the bone disease will likely be a failure. If the abscess is small, and does not show a tendency to increase, I believe that it would be better to let it alone. I remember two cases in which, after opening, the discharge continued profuse, and death occurred. I do not believe that the discharge is kept up by the condition of the abscess cavity, but by the tuberculous process in the bones themselves. While I should not hesitate to operate in a rapidly growing abscess in an individual more or less healthy, and where the promise of repair is moderately good, yet in such a case as I now have under observation, an adult, with probably some tubercular changes in the lung, who now has a fistula in ano, a tuberculous testis and an iliac abscess on the right side, I have no doubt that if this abscess were opened the suppuration would be prolonged and the retrograde changes would be hastened. If, as I have said, the individual were moderately healthy and capable of reacting, I should do as Dr. Young has done.

Dr. John B. Roberts: I am interested in two points of the discussion. One is the expression of the opinion that a good many of these cold abscesses, or tubercular abscesses, should probably be allowed to go without opening because of the probability of absorption taking place. My own feeling has been that so few are absorbed that as soon as I see one I have been inclined to incise it, as the risk under antiseptic treatment is so slight. I should like to hear this point developed a little more.

The statements as to the rapidity

with which these tubercular abscesses heal after opening, with only a small sinus and a moderate amount of discharge remaining, is interesting to me, because that has not been my experience, probably because I have not treated them so satisfactorily. I should like to hear this brought out more thoroughly.

The more radical operations of curetting and cutting down, and trying to get rid of the carious bone, which have been vigorously advocated, does not seem to meet with the approval of the members who have spoken. That is a comfort to me, as it has been my practice to refuse such operations.

Dr. M. Price: I have no experience in spinal surgery, but the observation of these two cases would lead me to send such cases to the man who would treat them in this way. Dr. Davis' criticism as to the operation is, in a measure, outside of the scope of this discussion. It is a question whether or not you can benefit a man without tubercular deposits in various parts of his body. Pus is a foreign body, and it is doing damage, no matter what part of the economy it is in, and should be removed. The fact that the patient is weak and broken down is no argument against operation. If there are any cases that would suggest waiting, it would be the strong and vigorous, those who can combat disease and resist the poisonous effects of absorption of pus. My feeling is that we should always remove pus, and drain if we can. I see no reason why the treatment laid down by Dr. Young is not the proper treatment in spinal diseases where the result will be fatal if the large majority of cases are left to Nature. Even if a large proportion died it would be no argument against operation. I believe that the two cases shown are one of the best arguments in favor of this method of treatment. Both of the chil-

dren show that they are in good condition. I am surprised that Dr. Davis should recommend the leaving of a large abscess, poisoning the patient under the possible chance of recovery. The pus is dangerous and should be removed. It is so in the pelvis, and the spine is no exception.

Dr. Davis: I am not aware that I said anything derogatory to Dr. Young's views or his method of treatment. It is simply a choice of cases. I believe that in Dr. Young's cases the choice was properly made. Against the adoption of incision in all cases of abscess, I did speak. Dr. Price has asked the reason why we should leave pus. The pus of cold abscess is different from that of acute abscess. I cannot recall any case of acute abscess where I should hesitate to let pus out, and when it comes to abscess in which the active organisms which were largely instrumental in the production of that abscess are dead, then you have simply a foreign body, a foreign body which is liquid to a great extent, and which at times does become absorbed, and one should consider well before opening it. In deciding whether or not to open these abscesses, I laid stress upon the condition of the patient. Dr. Roberts, with his usual modesty, suggests that some lack in his operative procedures may account for some of the results that he has had, but I am sure that all of us know the care with which he attends to his cases, and that this is a very insufficient explanation to account for their continued suppuration. The rest of us can take it for granted that if such results occur in the hands of a surgeon as careful as Dr. Roberts, they are as liable to occur in our hands. There are certain cases of abscess in connection with bone in which, if the abscess is opened, suppuration is thereafter continuous, and more or less pro-

fuse, and in a markedly tuberculous patient will not infrequently lead to death.

I have no doubt at all that absorption of pus does take place, but, as Dr. Young pointed out, where the abscess is large, and there is danger of rupture into adjacent cavities, or where there is a rapid increase in size, the indications for relief are clear. I should not expect absorption in such cases, nor should I hesitate to operate. Where the abscess shows no tendency to increase, particularly in a weak strumous individual, I should certainly adopt a conservative policy.

The President, Dr. De Forest Willard: I do not believe in allowing pus to remain in the body. As soon as we are certain that pus exists in any cavity, we should adopt measures for its removal. In regard to the old theory that hectic fever resulted from these incisions—that was simply septic fever. A temperature sheet, such as has been shown, where, after the operation, the temperature only one occasion reached 100°, shows that "hectic" fever is preventable. Moreover, in many cases where before operation the temperature has been from 103° to 104°, on the day following incision it will be found below 100°. This temperature of 104° burns the life out of these cases, and these are the ones that should be operated to get rid of the poison. Tuberculous pus is dangerous if allowed to remain; it is a focus of disease, and from it new foci in other parts of the body may be developed. Therefore, I believe an incision under thorough aseptic and antiseptic precautions, with thorough drainage and thorough curetting where it is possible. There is one caution to be observed when making through-and-through drainage—care should be exercised in the use of the curette on the

peritoneal side of the abscess. The curette may cause little perforations in, and then, as is sometimes done, peroxide of hydrogen is injected, small quantities of pus may be forced through these openings.

These wounds can be kept aseptic; I know of cases that have been discharging for months, yet the wound has been kept absolutely aseptic, but if a fresh suppurative process is engrafted on these sinuses there will be a serious drain, and probably great drain to the patient. I am thoroughly satisfied at the operative treatment, not that it cures the original disease, but it relieves the drain on the patient, diminishes the fever, and, if accompanied by proper fixation and by hygienic measures, permits the patient to become hearty and strong, in place of the wretched, worn, exhausted individual which we so often see as the result of poisoning from the absorption of tubercular pus.

Erosion of the vertebræ is a dangerous and also a difficult operation, and in the end the surgeon is never certain that he has eradicated the disease. That is the real objection to erosion. If we could be certain that we could remove all the disease, it would be worth all the time, trouble and risk which are required to reach the source of trouble. I do not believe that there is any operator so adept as to be able to work entirely around in front of the body of the dorsal vertebræ. I certainly have never succeeded except in cases where there has been a large deposit of tuberculous matter and where the body of the vertebræ has been broken down. In healthy dogs I have tried over and over after removing the head of a rib, but never

succeeded without getting into the pleural cavity. In one case where there was a large tubercular mass in front of the vertebræ, pushing the pleura forward, I passed a loop of tubing entirely around.

Dr. Young: The conservative method is a well accepted form of treatment. There are on record two well authenticated cases in which recovery followed where there were large abscesses in this region and the patients refused operation. They are those of Dr. Taylor, of New York, and the case recorded by Bradford and Lovett. Two years later the abscesses had disappeared. I have now under observation a case in which there was a large abscess which has now disappeared.

In speaking of rapid cures in these cases, I was speaking as a surgeon in chronic cases. By "rapid cure" a chronic surgeon would mean months.

These cases discharge for six or eight months, perhaps a year or longer. I am inclined to think that these cases represent a special group of cases—that they are iliac abscesses similar to psoas abscesses, and not to be distinguished from them except that very early we notice psoas irritation in these cases. The first symptom may be irritation of the psoas muscle, as demonstrated by the inability to extend the thigh beyond the normal line. Then, upon palpation, possibly a deep abscess may be discovered within a few days. Then the abscess will become larger, and this is the time for operation. In all these cases apparatus was applied early and continued. As soon as possible after operation a plaster jacket was applied, and afterward a plain brace or support of some kind.

Selected Papers.

CLINICAL VALUE OF RENAL CASTS.

By A. E. AUSTIN, A.M., M.D., Professor of Medical Chemistry at Tuft's College Medical School.

Whatever the theory we entertain of the formation of these casts—whether we consider them simply moulds of the renal tubules composed of the exudated serous elements of the blood, hollow cylindroids consisting of the epithelium of the tubule intact, or abnormal secretions of the cells themselves—we can, nevertheless, separate them into groups from consideration of each of which certain definite and natural inferences may be drawn. In the first group we may place the hyaline and blood-casts, which, if found alone, merely indicate the presence of some irritation and consequent hyperæmia of the kidney, but not of sufficient severity to produce a true tubulitis with consequent desquamation of the epithelium. In connection with this I recall the case of a young lady whose only symptoms were lumbar pains and vesical irritation, but whose urine for a long time contained a trace of albumin and quite numerous hyaline and blood-casts, with very many crystals of oxalate of calcium. Upon a diet which excluded amylaceous and saccharine food the urine entirely cleared up, and she has since remained in good health. Here, also, may we place those cases of passive congestion of the kidney which are invariably dependent upon some obstruction to the egress of blood through the renal veins, and are always recovered from if the obstruction can be removed. A good illustration is the following: A woman, seven months pregnant, whose only symptom was

marked œdema, passed urine with the following characteristics: amount, 500 cubic centimetres; specific gravity, 1024; color high, slight trace of albumin; urea, 17.76 grammes in the twenty-four hours; chlorine, 4.08 grammes; sediment contained a few hyaline casts. This condition remained until her confinement, causing a great deal of anxiety on account of the persistently small amount of urea, but the delivery was normal, and, two days after, the urine was free from albumin and casts.

Closely associated with the hyaline cast also is the amyloid change of the kidney, due usually to suppuration, and equally favorable in its outlook if the source of suppuration can be removed. A most admirable example of this occurred in the case of a young woman suffering from a suppurating dermoid of the ovary, from which there was a sinus into the bladder. Here the urine was of a low specific gravity and pale color. Besides containing a large amount of pus, it also had great numbers of hyaline casts, yet, at the autopsy—which followed an attempt at operative relief—the kidneys, while somewhat enlarged and containing a few minute abscesses, showed very little pathological change.

In our next class we may place the epithelial, granular (both brown and pale), and fibrinous, all of which indicate acute inflammation of the tubules of the kidney, but of different degrees of severity and different stages of progress. Hence we can very conveniently make

subdivisions of these casts as follows: The epithelial casts indicate a very early mild stage of the process, one of mere desquamation, while the renal cells themselves appear—both as seen in the urine and in sections of the kidney in a state of acute nephritis—either absolutely normal, or, perhaps, slightly cloudy with nuclei somewhat obscured. The urine next described illustrates this. With an amount of 1,020 cubic centimetres, specific gravity 1,030, and high color, there was a slight trace of albumin, numerous hyaline casts, some with blood and renal cells adherent, considerable free blood and renal epithelium. The process may stop here, as in the case above, or we may have following this both brown and pale granular casts, which show a much more advanced stage of the inflammatory process, though still an acute one, as well as one of much greater severity. There will also be associated with this condition a diminution of the solids in the urine, as this case shows: Amount, 1,200 cubic centimetres; specific gravity, 1,019; albumin, large trace; urea, 25 grammes; chlorine, 4.6 grammes; phosphoric acid, 0.15 grammes; sediment, renal cells, some fatty, hyaline and granular casts, some oily, rarely epithelial and fatty casts, occasional blood globules, both free and adherent to casts. This case illustrates another point, which is that few cases go on to recovery without first passing through a fatty stage which is a perfect pathological sequence, the fatty cells and casts representing the effete products of degeneration of the cells, and often ushering in the complete restoration of the tubule, comparable only to the casting off of the dead leaves of the trees in autumn when their nutrition is withdrawn.

In the last category we should place the fatty casts, when numerous and per-

sistent, and the waxy cast, both of which indicate long-continued and essentially chronic inflammation of the kidney, while the latter especially indicates the near approach of a fatal termination. With this condition blood is almost invariably absent, and epithelial cells, even in the fatty form, infrequent, since the tubules have been stripped entirely of their epithelial elements. This can be easily seen by the microscopic examination of a section of any kidney in an advanced stage of desquamative nephritis; tubule after tubule will be seen entirely bereft of its epithelial elements. This condition is, of course, associated with great diminution of the solids of the urine, since in the cell, now no longer present in any considerable numbers, is probably situated the power of selecting those elements which go to make up the solids of the urine. These facts are easily seen in this case: Amount, 470 cubic centimetres; color high; specific gravity, 1,030; albumin, 1.8 p. c.; urea, 17 grammes; chlorine, 0.59 gramme; phosphoric acid, 0.56 gramme; sediment, many hyaline, granular and fatty casts, very few epithelial casts; fatty renal cells.

That peculiar combination of pale, granular and hyaline casts of small calibre, free from fat, is usually indicative of a fibroid kidney, where the cell is lost, not from inflammation *per se*, but by the constant narrowing of the calibre of the tubule, by which the cells are squeezed from their site, and hence lose their nutrition, while fewer and fewer cells can be accommodated in their narrowed quarters; perhaps, also, from the fact that an analogous change is taking place in the arteries providing their blood-supply, they die from lack of blood-supply.

As a modification of the latter condition, we may see the numerous hyaline

and granular casts, as well as fatty casts of very small diameter, which prove a union of the fibroid and fatty kidney or a diffuse nephritis. Here there is always a doubtful question presented to us as to which condition was prior—an interstitial nephritis becoming parenchymatous, or the latter condition present in a kidney which subsequently becomes contracted.

That we may find all of these casts at the same time must, of course, be acknowledged; but this does not necessarily destroy the validity of our classification, for it is well known that a nephritis is a progressive disease, and while certain portions of the kidney may have undergone the most destructive processes, other portions will be found comparatively unharmed. There-

fore from those portions of the kidney that are but slightly affected we may expect to find casts significant of this condition, while from those parts whose functions are almost lost through advanced disease of their tubules, we have the fatty and waxy casts indicative of that state.

We have, further, those extremely broad casts, of any of the varieties mentioned, which are evidence of the implication of the pelvis of the kidney; in other words, a pyelonephritis.

Finally, great emphasis should be given to the fact that the term "casts" alone means nothing, but the kind of casts should be specified, and that each kind of cast has its own significance.—

International Medical Magazine.

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REPORT ON THE ETIOLOGY AND PREVENTION OF DIPHTHERIA.

Presented on behalf of the German Committee to the Eighth International Congress of Hygiene and Demography, at Buda-Pesth.

By F. LOEFFLER, M D., Professor of Hygiene in the University of Griefswald.

The following is the summary of the conclusions of this important report:

1. The productive agent of diphtheria is the diphtheria bacillus. Dispute as to the etiological definition of this bacillus exists no longer. We can, therefore, henceforth indicate as diphtheria such forms of disease as are infested with the bacillus.

2. Not infrequently cases appear in the early stages to the clinical observer as true diphtheria, which, however, are caused by other organisms, as streptococci, staphylococci, pneumococci, and in light or graver form may be mistaken for diphtheria. But the differential diagnosis can be effected through bacte-

riological research. Statistical compilations on the epidemic spread of diphtheria, as well as on the character of diphtheritic epidemics, cannot represent an exact definition so long as the bacteriological investigation of cases suspected of diphtheria fails to mark a division between true diphtheria bacillus and cases merely resembling diphtheria.

3. Diphtheria epidemics show a various character, as do many other epidemics of infectious disease. The course of the epidemics is often very light, but also much more severe, indicated by the high figure of the death-rate, the rapid infection of the larynx and the nose,

and by severe heart and kidney affections and consecutive paralyses. But also in the same epidemic instances of severe and light forms of disease frequently alternate irregularly.

4. The variation, of course, will be determined by several factors: (a) By differences in the number and the virulence of the diphtheria bacilli; the causes of the latter are not yet absolutely known. (b) By concomitant bacteria, and, indeed, as much by pathogenic as saprophytic; the processes of infection with regard to the diseased mucous membranes in the passages and in the nose appear to influence the course of the disease unfavorably, in part by increasing the virulence of the bacilli, in part by weakening the body through absorption of decomposition products. (c) By individual tendencies not yet thoroughly recognized.

5. The diphtheria bacillus can appear in the passages, especially of the nose, of separate individuals without causing indications of sickness, which it first induces when it has actually established itself. Lesions of the mucous membranes, small eruptions, catarrhal changes, are favorable to its residence. In brief, meteorological conditions, giving admission by the first approach to catarrh, especially cold, damp weather, appear to favor the sickening from this cause. But this influence has to be more closely observed.

6. Diphtheria is most rapidly communicated by direct contact between sick and well through spitting, coughing, sneezing, kissing and grasping of the hands, whereby the hands come into contact with fresh secretion, but also freely through utensils which the sufferer has fouled, with his excretions, by beverages, food, eating and drinking vessels, cast-off washing clothes and other arti-

cles, pocket-handkerchiefs, playthings, even long after their actual infection.

7. The sick is infectious so long as he has bacilli upon the mucous membranes. The bacilli usually disappear with or soon after the disappearance of the local signs, but they may be detected still lively and virulent in the passages or nose for weeks and even months.

8. In organic matters condensed and excluded from light the bacilli can maintain themselves for a period of months outside the body; accumulations of dirt, dark and close dwellings favor thus the preservation of bacilli and the extension of disease.

9. As a specially noticeable vehicle for the extension of disease is to be noted the crowding together of susceptible individuals, especially in families of many children. But other gatherings of people, apart from children, where separate persons do not come into such proximity as the members of a family, may offer facility for the extension of infection, as schools, barracks and the like.

10. The diphtheria bacillus is so far not identified with certainty as the cause or inducer of other diseases similar to diphtheria or of other spontaneous disease of lower animals. The possibility of the conveyance of true diphtheria from sick animals to human beings is thus outside our present knowledge. It is desirable that the governmental investigating committees should combine with research regarding diphtheria coming under their notice the similar diseases of animals, and also the communication from animals to human beings of diseases resembling diphtheria.

11. As prophylactic means are to be considered: (a) Care for cleansing, keeping dry, sufficient ventilation and lighting of the dwelling; (b) careful cleansing of the mouth and nose, gargling with

weak solutions of common salt and carbonate of soda, thorough brushing of the teeth, extraction of bad teeth, attention to the deeper cavities of the tonsils and removal of hypertrophied tonsils; (c) cold douching of the throat in times of diphtheria prevalence.

12. Every case suspected as diphtheria must, when possible, be bacteriologically investigated. The physicians must have easy access to the required materials for carrying on the culture, for example, in the chemists' shops. The investigation has to be carried on by specialists, as in the case or cases of suspected cholera.

13. All cases proved bacteriologically to be true diphtheria, as well as all cases suspected as diphtheria which have not been bacteriologically investigated, must be dealt with as under police regulation.

14. Every diphtheria case must be isolated either in a separate room of the dwelling or in an isolation ward. In order to restrict as much as possible the spread of the bacilli by the sick, a local antiseptic and bacillar treatment must be employed with a view to prophylaxis against the early stages of the disease.

15. One of the most effective means against the spread of diphtheria to be cared for is the protective inoculation of susceptible individuals in the neighborhood of the patient, especially of children. In proportion as the innocuousness of Behring's serum cure through preventive injection is established for curing or prophylaxis, it appears worth while to develop further, as far as possible, the art of inoculating it in families and in school classes in which diphtheria cases have occurred.

16. In every case of diphtheria disinfection is imperative. This is needed for all utensils for the sick, as well as for the sick themselves and the sick room

17. Convalescents from diphtheria must not mix freely with others (children go to school) till bacteriological investigation has proved the removal of the bacilli, and the sick, after a warm bath with soap, have been thoroughly cleansed and have put on clean clothing.

18. On the outbreak of diphtheria epidemics notification should be given in the public press.—*British Medical Journal*.

THE VALUE OF MERCURY AND IODINE OF POTASSIUM IN OPHTHALMIC SYPHILIS.—M. Chibret, after 19 years of practice, believes that iodide of potassium has a specific value in the treatment of ophthalmic syphilis. 1. In ophthalmic syphilis mercury alone always is effective; iodide of potash alone never is. 2. In general syphilis mercury alone acts almost always in all cases; iodide of potash alone on almost none. 3. In the cases of syphilis mercury alone is the touchstone to guide one in one's diagnosis. 4. Mercury, the specific for syphilis, is at the same time poison to the whole organism, and especially to the nervous system. 5. Iodide in syphilis is often indicated to counteract the irascible effects of the mercury. 6. Iodide acts on lymphatic glands and rheumatism. 7. Severe syphilis is only affected by mercury or mercury in combination with iodide of potash. Iodide has not the local action that mercury has, but aids the patient to withstand the mercury treatment. The only thing to fear in the combined treatment is diarrhoea, when this appears stop treatment to continue it later in smaller doses. Iodine is only useful in those cases where a saturation of mercury is necessary. In other cases it is useless, even harmful, for it diminishes the therapeutic action of the mercury.—*The North American Practitioner*.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

The subscription price of this JOURNAL is \$2.00 a year.

This JOURNAL is published on the fifteenth of every month, and any subscriber failing to receive his copy promptly is asked to announce the fact to this office.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and remittances made by P. O. Order, Draft or Registered Letter, payable to ROBERT D. JEWETT, M.D., P. O. Drawer 810, Wilmington, N. C.

Editorial.

ANNOUNCEMENT.

THE JOURNAL A SEMI-MONTHLY!

When the present management assumed control of the JOURNAL, two years since, we soon saw how much more satisfactory and advantageous it would be to our readers to have the JOURNAL issued twice a month. We at once determined, if the success of our efforts to increase the subscriptions and advertising patronage would permit it, to issue the JOURNAL as a semi-monthly, and so have it to take the place we have planned for it—in the lead of Southern medical journals.

At the outset we felt warranted in increasing the amount of reading matter and introducing various improvements, and at the same time we reduced the subscription price from three to two dollars. The results have proven the

wisdom of our action, for the past two years have been by far the most prosperous the JOURNAL has ever experienced. The advertising patronage has nearly doubled, while the circulation has increased more than an hundred per cent. We feel highly encouraged by these facts and will push on with greater zeal than ever to make the JOURNAL worthy of its position as the official organ of the Medical Society of the State of North Carolina. We desire to extend our most hearty thanks to our friends, both subscribers and advertisers, for their constancy and their kind leniency in the matter of any shortcomings upon our part.

It is with a feeling of great pleasure and deep satisfaction we are now able to announce to our readers that the

JOURNAL has taken another great step forward, and after this issue, which completes its *seventeenth year*, will appear as a semi-monthly. Your JOURNAL will hereafter visit you on the 5th and the 20th of each month, or as soon after those dates as the mails will permit. The reading matter will be again increased by eight pages a month. The JOURNAL will don a complete new dress from cover to cover, and the price of subscription will remain the same.

The greatly increased circulation of the JOURNAL is evidence that our physicians appreciate a live, progressive journal, and are willing to give it their support. We will make every effort to merit, and we believe we will receive, the continued and increased support of the doctors of the Carolinas and of the South generally. We will be ever alert to give to our readers the medical news of the day (which will be fresher for coming twice a month), information upon the constant advances that are being made in medicine, and in condensed form the choicest of the good things that appear in the journals of this and other countries. And right here let us state again, as we have done before, that the reading matter that appears in these pages, is either an original communication from some writer whose object, in our opinion, is the advancement of medical science and not the laudation of some proprietary preparation, or else it is matter gleaned by the editor from the medical literature of the day, and published because we believe it will be of interest and value to our readers. When a *bona fide* writer desires to mention by name some special preparation which he has found especially efficacious, such mention will not

be forbidden, for we deem it to the interest of our readers that they should be made acquainted with such facts, but we will exclude all articles that are apparently prepared for the purpose of bringing in the name of such preparations.

"Lastly," we will say that we desire to have the JOURNAL a regular visitor to every doctor in the Carolinas, and desire also that those having interesting cases will report them through the JOURNAL, making their reports as condensed as possible, for busy doctors like their literary food predigested. We want especially abstracts of papers read before local societies with the discussions, and we hope that those secretaries who read this will bear it in mind and furnish us the matter. We will be pleased to send them extra copies of the JOURNAL for distribution. The amount of original matter from home doctors was more last year than ever before, but we want more.

THE STATE BOARD OF HEALTH.

A change has been made in the *personnel* of the State Board of Health by the resignation of Dr. Henry T. Bahnson, of Salem, and of the appointment by the Governor of Dr. W. P. Beall, of Greensboro, to fill the unexpired term of Dr. Bahnson.

Dr. Bahnson has been a member of the Board since 1887, and its President for about five years. During his membership he has ever manifested a growing interest in the work of the Board, and has given much time and thought to the institution and carrying out of plans that would improve the sanitary condition of the State. Especially was he interested in the condition of the

jails and poor houses, and it was chiefly through his instrumentality that several instances of criminal negligence of the health of prisoners in county jails were brought to light and corrected. His resignation from the Board is not due to any diminution of interest in the work of this most important body, but because of his appointment by the Governor to another position of trust, and the fact that it would be unlawful for him to hold both offices. The Board has lost a most useful and energetic member, but it will not be deprived of his most earnest sympathy and support, we are quite sure.

In the selection of Dr. Beall as successor to Dr. Bahnson, we feel that the Governor has acted wisely and well. As a popular member of the Society, and representing the younger element, he will do much to enlist the co-operation of that part of the profession upon whom the Board must, in great measure, depend for its support and usefulness. In all his undertakings Dr. Beall has always shown such enthusiasm and ability as to assure us of his eminent fitness for the office to which he has been appointed, and we congratulate the Board and the State that he has been secured as one of the guardians of the health of our people.

"BETWEEN YOU AND ME."

We have told you, Doctor, that we

will, with the next issue, begin to send you the JOURNAL twice each month, thus giving you a decidedly more satisfactory journal. We hope that this effort to please you will be appreciated, and that you will do the little we ask of you toward advancing the prosperity of the JOURNAL. The change to two issues a month means considerable more expense, but we do not ask you for any increase in subscription price. We wish to remind you that much of the ability of a periodical to keep abreast of the times depends on the amount of advertising patronage it receives, and this, in turn, depends on the evidence the advertiser has that his advertisement in such a periodical is read. You will notice at the bottom of each advertising page a request that, in writing to advertisers, you will please mention the JOURNAL. This will take but a minimum of trouble on your part, but it will be of much benefit to the JOURNAL by showing the advertiser that you saw his advertisement in this JOURNAL. We would also add, *sotto voce*, that a few of our friends have gotten in arrears in their subscription accounts, and it would be a matter of considerable accommodation to us, in view of the great outlay we have just made in supplying a complete outfit for the JOURNAL, if those to whom we recently sent statements would make early remittances for the amounts of their accounts. This is very important, Doctor, so please do not put it off.

Reviews and Book Notices.

The Weekly Review Visiting List, for 1895. J. H. Chambers & Co., St. Louis. Price \$1.00.

This list is supplied with sundry useful

tables of doses, antidotes, etc., and with spaces for weekly call list, memoranda, cash account, obstetric engagements, etc. It is gotten up neatly in red

leather, and of convenient size for the pocket.

The Physician's Visiting List, for 1895.

Messrs. P. Blakiston, Son & Co., are out bright and early with their popular visiting list. As usual, it is published in various forms, the standard, for 25 patients per day or week, being priced at \$1.25. Other forms are made for 50, 75 and 100 patients per week. They also issue an interleaved edition and a perpetual edition. It has all the useful tables and other information.

Hare's Text-Book of Practical Therapeutics. A Text-Book of Practical Therapeutics: With Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. With special chapters by Drs. G. E. de Schweinitz, Edwin Martin and Barton C. Hirst. New (4th) edition, thoroughly revised and much enlarged. In one octavo volume of 740 pages. Cloth, \$3.75; leather, \$4.75. Philadelphia, Lea Brothers & Co., 1894.

In less than four years from the time of the issue of the first edition of this book the *fourth* edition has been called for. Could any more striking proof of its popularity be desired by either author or publisher? The same originality and cleverness in imparting knowledge to others that makes the author so popular as a Professor in the great Jefferson Medical College is reflected in his Text-Book of Therapeutics. Nearly two years have elapsed since the third edition was issued, and, besides the many additions that have been made to this branch of medicine during that time, the new Pharmacopœia has been published,

making necessary many changes in this fourth edition. The author has kept the volume well abreast of the advances, and has also rendered it uniform with the Pharmacopœia. In formulas and doses both the Apothecaries' and Metric weights are given, the former taking, unfortunately, the more prominent place. The volume retains its same general characteristics, being divided into three parts—Drugs, Remedial Measures Other than Drugs, and Diseases. A thorough "Therapeutical Index" is supplied at the close of the volume, which will enable the physician to see at a glance all the different remedies that are applied to any given disease.

Landmarks in Gynæcology. By BYRON ROBINSON, B.S., M.D., Professor in Gynæcology in the Chicago Post-Graduate School, etc. In two volumes. Physician's Leisure Library Series. Price 25 cents per volume, paper. George S. Davis, Detroit.

Dr. Robinson enumerates six landmarks in gynæcology, viz: Anatomy, Menstruation, Labor, Abortion, Gonorrhœa, Tumors. Under these six heads, the author runs briefly over the wide field of the diseases of the reproductive organs of women, giving a few practical suggestions as to treatment, both general, hygienic and medicinal, local and operative.

A Manual of Human Physiology. Prepared with Special Reference to Students of Medicine. By JOSEPH H. RAYMOND, A.M., M.D., Professor of Physiology and Hygiene in the Long Island College Hospital, and Director of Physiology in the Hoagland Laboratory. With 102 illustrations in text and 4 full-colored plates. W. B. Saunders, Philadelphia, 1894. Price, cloth, \$1.25, net.

This is only a manual, and not an exhaustive text-book of physiology. Its

production is based on the author's experience of twenty years as a teacher, and which has led him to "believe that in the short time allotted to the study of physiology in medical schools students can assimilate only the main facts and principles of this branch of medicine, which lies at the very foundation of a sound knowledge of the healing art; and that even if there were time to investigate the more recondite and abstruse parts of the subject, such an investigation would be profitless during formative period." This manual is most excellent and exact, as far as it goes, and up to date in recent investigation, but we cannot agree with the seeming opinion of the author that such a book is of itself sufficient for the instruction of the medical student. It will doubtless be sufficient to enable him to secure his diploma, but with a compulsory course of four years and a graduated course of study, there will be time for a deeper study into this subject, "which lies at the very foundation of a sound knowledge of the healing art," and which study will not be prosecuted after graduation by one in ten physicians.

This is the first of Saunders' New Aid Series, and promises well as a most useful help in the student's work. It is well illustrated, printed and bound.

A System of Legal Medicine. By ALLAN McLANE HAMILTON, M.D., Consulting Physician to the Insane Asylums of New York City, etc., etc., and LAWRENCE GODKIN, Esq., of the New York Bar. Illustrated. Vol. I. E. B. Treat, 5 Cooper Union, New York, 1894. Price per volume, cloth, \$5.50; full sheep, uniform law, \$6.50.

This promises to be the most complete and authoritative work on the subject of medical jurisprudence that has ever been published. The authors have secured some of the most distin-

guished members of the medical and legal professions, who have paid especial attention to this subject, as collaborators, and to each of these was given the subject upon which he was best fitted to write. The whole volume of 637 pages is so excellent, and contains so much that is new in works of this nature that the reviewer is at a loss as to which chapters he should call special attention. The chapter on Medico-Legal Inspection and Post-Mortem Examinations should be read by every physician who is liable to be called upon to examine the body of a person found dead, and especially by those whose official position requires them to perform this duty.

In the chapter on Death in Its Medico-Legal Aspects, by Dr. Francis A. Harris, Dr. Hebbert, who was associated with Mr. Bond, the Coroner of London, has presented in detail the records of the famous Whitechapel murder cases and the deductions therefrom. Professor J. F. Babcock has a chapter on Blood and Other Stains. This chapter is very complete and instructive, and is freely illustrated. The blood is studied with relation to its physical, chemical and microscopical properties, and also as to its behavior in the spectrum under different conditions. Explicit instructions for the examination of suspected stains are given and the methods of distinguishing between blood-stains and other substances that resemble them.

We can only make mention of the chapter on Identity of the Living, by Dr. Hamilton; Identity and Survivorship, by Benjamin N. Cardozo, Esq.; Homicide and Wounds, by Lewis Balch, M.D., Ph.D.; Inorganic Poisons, by C. E. Pollow, E.M.; and Alkaloid and Other Poisons, by Walter S. Haines, A.M., M.D., all of which show evidence of close study and diligent research on the part

of the authors. One of the most interesting and important chapters in the volume is that by Professor Victor C. Vaughn on The Toxicological Importance of Ptomaines and Other Putrefactive Products. He shows how easy it is for the chemist to make mistakes in the examination of putrefying bodies for the alkaloidal poisons, e. g., under atropine he shows how in several instances a substance was separated which gave several reactions which are considered peculiar to atropine, but in further crucial tests failed to correspond; and so with nearly all of the alkaloids. But we might go on indefinitely enumerating interesting features of the book.

The volume is illustrated by 83 cuts and 8 full plates, and the illustrations,

as well as the typography, are unusually good.

Essentials of Diseases of the Ear.

Arranged in the Form of Questions and Answers, Prepared Especially for Students of Medicine and Post-Graduate Students. By E. B. GLEASON, S.B., M.D., Clinical Professor of Otolggy, Medico-Chirurgical College, Philadelphia, etc. No. 24 of Saunders' Question-Compends. W. B. Saunders, Philadelphia, 1894. Price, \$1.00.

This little volume will be of service, not only to those whose needs it was especially designed to meet, but also to general practitioners who wish to quickly refresh their memories on the important facts in the treatment of diseases of the ear.

Abstracts.

PATHOLOGY AND TREATMENT OF PELVIC ABSCESS IN WOMEN, WITH ESPECIAL REFERENCE TO RADICAL OPERATION BY THE VAGINA.—(Landau, *Archiv. f. Gyn.*, 1894, Band. xlvi., Heft. 3.) After a thorough study of the causes of pelvic suppuration and the methods of infection, L. reports 141 laparotomies in which he performed salpingo-ectomy, with a total mortality of 2.8 p. c. These cases were divided as follows: Pyo-salpinx, 63; hydro-salpinx, 38; both pyo- and hydro-salpinx, 6; non-purulent salpingitis, 10; tubal pregnancies, 24.

As to the end results he regards 60 to 70 p. c. as permanently cured. While these statistics are very good, he recognizes that many cases treated by laparotomy are not completely successful. Under certain conditions of complicated abscess formation, L. greatly prefers

vaginal radical operation, i. e., the removal of the uterus and its appendages by the vagina. He gives at length the clinical histories and the details of the operations on 30 such cases, all successful, and, as he claims, permanently cured.

His masterly study of the subject is wound up by the following resumé:

1. Abscess occurring in one side of the pelvis where we have to do with single point of softening, incision is indicated; by way of the vagina should the abscess be in that neighborhood, by way of the abdominal walls, especially in the subinguinal region, should the seat of the abscess be near them. Should the abscess reach from the vagina to the abdominal walls, healing is hastened by incision, both below and above, and drainage. A counter-opening is, how

ever, in general, not necessary. The question whether the abscess is intra- or extra peritoneal or intratubal has no influence on recovery, so long as the abscess is only unilocular. Should incision prove ineffective, resection of the uterus is strongly indicated.

2. In the case of recurring multilocular abscess in unilateral multilocular pyo-salpinx, the only thing to be considered is laparotomy with removal of the affected appendages. If, and this is generally to be recognized only during the operation, there is at the same time present an extra-peritoneal abscess (generally of the subligamentary type), this should be drained from the vagina and the abdominal cavity closed.

Should, however, contrary to expectation, upon opening the abdomen, it be found that the appendages on the other side are diseased, we should proceed as under Section 5.

3. In the case of bilateral disease and unilocular abscess on both sides, incision by the vagina or the abdominal walls is permitted in accordance with the principles laid down in Section 1. This attempt at cure (even in the case of pyo-salpinx duplex unilocularis), even if unsuccessful, is not prejudicial to other operations should they later become necessary, and may possibly be successful.

4. In the case of bilateral disease and multilocular pus sacks, such as multilocular pyo-salpinx, etc., laparotomy with extirpation of the adnexa on both sides is certainly admissible; but the operation does not guarantee a permanent cure. Far better in these cases.

5. As in the case of bilateral disease and complicated multilocular pyo-salpinx with or without the formation of fistulæ, with multiple intra- and extra-peritoneal abscesses and in cases of all the simple abscesses, in which more conservative

attempts have proved unsuccessful, is the radical operation, i. e., the extirpation of the uterus and its adnexa, in other words, the emptying of the pus cavities and the removal, as far as possible, of all the walls of the abscesses per vaginam.

6. This radical operation by way of the vagina is performed by aid of forceps and morcellement, and the operation is a relatively safe one and gives excellent results.

7. According to my own experience, the extirpation of everything that is diseased should be by the vagina. Should this be impossible, at once, on removing all that is possible by the vagina, a laparotomy should be done and the operation so completed.

8. In certain cases, even before the attempts at vaginal extirpation are made, careful examination will have made clear the difficulty or impossibility of removing per vaginam all that is diseased. In these cases, and especially in those in which the diagnosis has not made certain whether the process is bilateral, the combined operation should be determined upon from the beginning. When in doubt whether one has to do with a bilateral suppuration, of course one would begin with a laparotomy. When it is probable, even if it is not certain, that the extirpation of all the diseased tissues is possible per vaginam, the extirpation should be begun from below.

In cases where examination makes completion of the operation by the vagina improbable, as, for example, pus sacs lying high up and forward, the operation should be begun by a laparotomy and the freeing, and possibly removal, of the adnexa from above, but the removal of the uterus must be performed, under all circumstances, per vaginam.

9. In these cases of combined operation L., for drainage, leaves the vaginal

wound wide open, and also uses in the abdominal incision a glass drainage-tube for three or four days.

10. Favorable experience with the radical operation as regards its success, and the complete cure of complicated abscesses, make it advisable also in uncomplicated suppurative diseases of both appendages in these cases in which, up to now, it has been regarded as enough to remove the affected appendages and leave the uterus, as, according to the experience of almost all operations, absolute cure is not assured by the old treatment.

11. It is strongly urged that more weight should be laid upon the diagnosis as to whether the affection be bilateral before the so-called exploratory incision through the abdominal walls or the vaginal vault, so that women shall not be mutilated on account of the certainty and relative safety of the "hysterosalpingo-oöphorectomia vaginalis," whom it would have been possible to have cured by more conservative means.

12. It is strongly urged that vague terms, such as pelvic suppuration, inflammatory disease of the appendages, etc., should be avoided, in order that statistics of real value may be collected, and that such terms should be replaced by ones referring clearly to the seat of the suppuration.—*Montreal Med. Jour.*

HYPNOTICS IN MENTAL DISEASE.—Evensen (*Norsk Mag. for Lægevidenskab*, No. 5, May, 1894) draws the following conclusions from his experiments with the various hypnotics in mental disease: Sulphonal was given to 76 patients in doses of 1 to 1.5 grammes. It was found to be very reliable, but its protracted use was sometimes followed by unpleasant symptoms. It was most efficient in acute cases—mania, alcoholism and active delirium. To avoid poi-

soning, it is well to alternate it with some other hypnotic, such as chloralamide. Amylene hydrate is a mild hypnotic, especially useful in cerebral anemia. The sleep following its use is natural, but the drug is rather uncertain in its action. The dose is two to five grammes. Paraldehyde in doses of two to eight grammes, when employed for a short period, is without deleterious effects, but its continued use is sometimes followed by prostration and various nervous disturbances. Trional and tetronal are similar in their action to sulphonal. The dose of either drug is one gramme. Chloralamide in doses of two grammes was administered to forty-five patients. Although not very certain in its effect, it does not depress the circulation as much as chloral, nor does it often cause headache, vertigo or vomiting. It acts favorably in senile dementia, but is valueless in conditions of great excitement. Somnal was employed in doses of from two to six grammes, but was very unreliable. Hyoscine was prescribed in 76 cases. Its action was prompt and reliable. When injected subcutaneously it induced sleep within half an hour, lasting five hours. It is useful in all conditions of excitement, and may be advantageously combined with sulphonal. It has little or no effect when administered by the mouth. It is harmless in doses under a milligramme. Its long use, however, is followed by cachexia. Duboisine in doses of one milligramme resembles hyoscine in its action, although it is less powerful. It sometimes causes hallucinations of sight.

**THE ADVANTAGE OF ATMOSPHERIC DISTENTION OF THE RECTUM, WITH DISLODGE-
MENT OF THE SMALL INTESTINES, IN THE BIMANUAL EXAMINATION OF UTERUS, OVARIES AND TUBES.**
—Howard A. Kelly (*American Journal*).

of *Obstetrics*, May, 1894) suggests a procedure for overcoming the embarrassment experienced by the crowding of the small intestines down into the pelvis and the consequent liability of making a false diagnosis of pelvic disease. Coils of small intestines in the pelvis containing fluid often feel tense and fluctuating, and thus readily impose themselves upon the examiner as large cystic ovaries, or leave him in doubt as to their true nature. The complete removal of these impediments may be satisfactorily effected in the following manner: The patient is placed in the knee-breast posture, with shoulders on the table and hips high and thighs vertical. The anal orifice is opened by a small speculum or tube, allowing the air to rush into the rectum. The explanation of this phenomenon is that, upon assuming the knee-breast posture, the small intestines gravitate along the anterior abdominal wall into the upper abdomen towards the diaphragm, creating a suction at the most elevated portion, which is the pelvic extremity, by means of which the whole ampulla and rectum balloon out with air as soon as the anus is opened, and the distended rectum applies itself broadly over the posterior surface of the uterus and left broad ligament. Before making such an examination, both rectum and bladder must be thoroughly emptied. Immediately after filling the rectum with air the tube is removed, the patient placed in the ordinary dorsal position with limbs flexed upon the abdomen, and the bimanual examination made per rectum and abdomen. The index finger introduced within the anus experiences at once the sensation of entering a large cavity filled with air, in which the customary resistance is absent. The communication with the upper bowel between the utero-sacral folds is, under these circumstances, readily found, and

the finger is conducted behind the broad ligament, when, on using the outside hand in assistance, uterus, broad ligaments, ovaries and tubes are at once palpated directly through the rectal wall, without resistance and with startling distinctness. The true pelvic viscera thus seen, as it were, to be skeletonized in the pelvis, lying so clearly exposed to touch that the minuter surface peculiarities, fissures and elevations, and changes in consistence, can be detected, and a diagnosis made more satisfactorily, more rapidly and with far less effort than under ordinary conditions.—*University Medical Magazine*.

TREATMENT OF PERI-UTERINE INFLAMMATIONS.—Scott (*Amer. Jour. Obs.*, June, 1894). "If the condition originates from a septic endometritis, as it so frequently does, the uterus should be curetted, washed out and a gauze drain introduced up to the fundus.

In the acute and chronic forms, where you do not suspect suppuration to have occurred, the patient should be kept at absolute rest in bed, and have morning and evening hot douches, prolonged from fifteen to twenty minutes. If the bowels are not filled with impacted feces, it is advisable to keep the patient well under the influence of opiates, to quiet peristaltic action.

Painting over a large portion of the abdomen with iodine should be tried, and, though I have never seen it done, I should be in favor of applying six or eight leeches to the portio vaginalis. Ice-cold applications are better than hot poultices; the latter, in my estimation, favor the growth of septic organisms and hasten suppuration, which might be averted by cold. If there is a gonorrhœal history, the utmost trouble should be taken to prevent its ravages by antiseptics applied to the inner surface of

the uterus, even if it has spread there. Diet and tonics, of course, will be attended to; pain will be met by morphia suppositories and opiates, and the temperature will be kept down by sponging with cold water and alcohol, and giving aconite and antipyretics with judgment. The treatment is practically the same, whether the condition be pelvic peritonitis, cellulitis, ovaritis or salpingitis. Cœliotomy will be performed if suppuration has occurred, and in cases of tubercular peritonitis the abdomen should be opened and flushed with hot water freely. Rarely is it advisable to remove the products of suppuration or effusion by an incision from the vagina or by tapping.—*Archives Gyn. Obs. and Pediatrics.*

VALUE OF COUGHING-TAXIS IN THE REDUCTION OF HERNIA.—Wherry (*Gaillard's Medical Journal*, March, 1894).—The cough which so often produces a hernial protrusion may be used with the greatest advantage during reduction. The abdominal parts concerned are in the most favorable position for the reduction of hernia while the patient is coughing; the taxis should then be applied by careful fingers after the following method: On beginning the attempt at reduction the surgeon places himself and his patient in the most comfortable and favorable position for gentle, continuous manipulations. The patient should be recumbent, with the buttocks rather raised and the thigh flexed on the abdomen, while the surgeon would usually prefer to sit by the bedside. During the whole of the time that taxis is used, the patient must cough, only stopping for rest or retching; the operator's efforts should be continuous, even during these pauses, and his gentle but firmly applied pressure will be aided by every

cough of the patient; also during the retching I have thought some advantage has been gained. In this method the sensation to the surgeon is that the hernia is reduced rather by the coughing of the patient than by the working of the fingers of the manipulator. I have, during several years past, so often succeeded in reducing herniæ of all varieties that I can strongly advise this plan, feeling sure that it only requires to be known and practiced to be appreciated. The last case which occurred to me I was called to see at the hospital at two o'clock in the morning, "very cross and dogged," as the spiritual diarist records. I found a middle-aged woman with a femoral hernia with urgent signs of strangulation. She had been under the care of two medical men who had, with taxis, used chloroform. The patient coughed during ten or fifteen minutes while my quite gentle but continuous taxis was used; the hernia was first gradually reduced in bulk, and the last little button returned with a jump into the abdominal cavity. A good recovery followed.

The finger placed in the healthy abdominal ring, while coughing is practiced by the person under examination, will enable the operator to realize that the alternating contractions and relaxations of the boundaries of the ring are most favorable for the return of the hernia, if pressure be skillfully practiced. In commending this plan I have only my own experience to go upon, but it is now sufficiently large to enable me to express myself with confidence in its favor. Coughing-taxis, as well as tussio taxis, would be a name as good as any other hyphenated hybrid for this manoeuvre, which I hope may prove as useful in other hands as it has done in mine.—*Mathews' Medical Quarterly.*

THE INTERPRETATION OF WATER ANALYSES.—The following clear exposition of the way in which a chemical analysis of drinking water should be interpreted is well worthy of careful consideration by all who are interested in this subject. The writer, Dr. J. C. Thresh, of Essex county, Eng., (*British Med. Jour.*, August 18, 1894), is well qualified to speak with authority upon this subject:

"Of the numerous substances found in potable waters, it is now generally admitted that only those of organic origin are a serious source of danger, and that by far the greatest risk is incurred in using water liable to contain certain living organisms, which, when introduced into the system, are capable of producing specific disease. Of the presence or absence of such organisms, chemical analysis can give us no information. The presence of organic matter may be chemically demonstrated, but, inasmuch as its nature, whether poisonous or innocuous, is beyond the power of the analyst to reveal, it is obvious that a mere chemical analysis may often be worthless or even misleading. This point cannot be too strongly emphasized, since the popular impression that the chemist, by performing a few mysterious experiments with a water in his laboratory, can pronounce at once whether it is pure or impure, safe or dangerous, is shared alike by the ignorant and the learned, and must be dispelled. This opinion has been, and continues to be, fostered by analysts, who rarely hesitate to pass judgment upon a water from the determination of the chlorides, nitrates, phosphates and ammonia, of the organic carbon and nitrogen, of the oxygen consumed and of the ammonia derivable from the organic constituents. All these factors are of more or less importance as an index of the degree of pollution,

recent or remote, but their real value can in very few cases be assessed without some previous knowledge of the source of the water. The inorganic constituents can easily be determined, and whether, either in quality or quantity, they are objectionable, the chemist may safely express an opinion. They are, therefore, chiefly of interest to us in so far as their presence tends to throw light upon the source of the organic matter, which in greater or lesser quantity is always present. Only under certain circumstances has the determination of chlorides any significance, and pure water from some sources may contain a larger amount of chlorides than the same water when contaminated. The importance of an estimation of nitrates was for a long time undervalued, at the present time the tendency is to greatly exaggerate it. The amount of nitrates which would condemn a water from one source may be absolutely without significance in a water from another. At certain schools it is taught that the presence of nitrites is conclusive evidence of the dangerous character of a water, yet these compounds may be derived from the most innocent sources, as by the reduction of nitrates by metals, cement, new brickwork, etc. Erroneous conclusions may also be drawn from the determination of phosphates, free oxygen, ammonia and albuminoid ammonia. In the table of analyses [exhibited but not reproduced] the erroneous conclusions which may be deduced from a too great dependence upon analytical data, are fully exemplified. The table is compiled from the reports of the medical inspectors of the Local Government Board, from the results of analyses made by well-known chemists and from my own report books. In nearly every instance chemical analysis failed to find such evidence of pollution as would

justify the analyst in condemning the water, yet these very waters were proved to have caused more or less serious outbreaks of disease. Although a mere mechanical examination cannot guarantee that a water is pure and can be used without risk, yet it can very frequently reveal to us impurity and danger. Chemical analysis, therefore, has its use; it is only when it is made the sole arbiter between safety and risk that it is abused and is liable to lead to errors fraught with most disastrous consequences. Let the analysis be as carefully made and as complete as possible, but let the results always be interpreted in the light afforded by a searching examination of the source of the sample. Let all so-called standards be abandoned as absurd, and let the opinion as to whether a water is dangerous or safe be based upon a full consideration of other more important factors. With the discovery of the fact that such diseases as typhoid fever and cholera are due to the introduction into the system, not of dead organic matter, but of living organisms, faith in the chemical analysis of water began to be shaken. When, still more recently, the actual microbes causing these diseases had been identified, and processes had been devised for isolating them from the multitude of other organisms found in water, it seemed as though the examination of water for sanitary purposes had passed from the domain of the chemist into that of the bacteriologist. Further experience, however, is teaching us that the results of bacteriological examinations may be as misleading as those of chemical analyses. The cholera bacillus could not be demonstrated in the water poisoning the inhabitants of Hamburg and Altona; neither could the typhoid bacillus be found in the water supply which last year produced the epidemic in Worthing. Koch even

falls back upon a standard of quantity, which is as illogical as the older chemical standards. Both depend upon quantity when the real point at issue is the quality. In reputedly good waters it has been observed that the micro-organisms present, capable of liquefying gelatine by their growth, are few in number, whilst in sewage-polluted water they abound. But this fact is of little value, since it only enables somewhat gross pollution to be detected, and most of these liquefying organisms are perfectly harmless. Bacteriology, like chemistry, may tell us something of impurity and hazard, but neither can be depended upon to determine with certainty whether a water is actually injurious to health. The possibility of occasional pollution is a point too often overlooked, yet it is to such accidental pollution that outbreaks of disease are most frequently attributed, and of the liability to this the examination of samples of water, prior to the occurrence of the contamination, may tell us little or nothing. The danger of such pollution does not, unfortunately, vary with the amount of any constituent found in the water, and a source yielding a water of great chemical and bacterial purity may be more liable to occasional fouling than a source yielding water containing excessive quantities of chlorides and nitrates, unoxidized organic matter, or even living organisms. Bacteriological and microscopical examinations, as well as chemical analysis, must, therefore, always be associated with a thorough investigation of the source of the water to determine the possibility of contamination, continuous or intermittent, and a guardedly-expressed opinion, given only after a full consideration of the bearing of the one upon the other. When a water is known to be fouled by sewage, or known to be liable to such pollution, any form of

examination is superfluous, and, as neither bacteriology nor chemistry can be depended upon to prove that a water is free from all dangerous pollution, such examinations are, in many cases, quite useless.—*Dietetic and Hygienic Gazette*.

THE NOSE AND ITS HYGIENIC RELATION TO THE BODY.—It is no unusual thing to give advice to our fellow-man. To prevent his doing what he is impelled to do by force of nature, or of habit, without showing him a better, or, rather, the true way of relief, is virtually improper. In this connection, the following is herewith suggested: Each human being who claims any moderate amount of cleanliness and care regarding his health, will, during his morning ablutions, wash his face, head, mouth, teeth and body, and may do so without ever dreaming that the human proboscis is one of the most uncleanly organs of the body (which fact our forefathers sought to overcome by the use of snuff, etc., but which proved of no avail), and its purification lies, last, but not least, in washing the nostrils proper, and this should be done in the following way:

After the completion of the above ablutions and the thorough renovation of the basin used, fill it nearly full of pure cold water; immerse the whole face therein, and by trial, learn how to gently snuff water, as one would customarily breathe air; a few sniffs may be taken and the face withdrawn, if the taking of breath has become necessary, and again immersing the face, repeat the action several times, but mark you, no force must be used. The result will speak for itself, in the residue left in the basin, thus proving the necessity for removing the surplus secretions of this organ and avoiding the dangerous necessity of carrying your catarrhal, as

well as tuberculoid matter in your pocket, not mentioning the sometime contagious results for the laundrying of handkerchiefs. The mucous surfaces of the nose thus become accustomed to the influence of the daily temperature by using the water in its normal condition, and many years of practical experience by its disciples has fully demonstrated the efficiency of this system.

All persons subject to catarrh, who practically have dry and clear nostrils, nevertheless have mucal droppings into the throat, and are often involuntarily compelled to swallow this retroverted mucus.

All this can easily be overcome by the permanent adoption of this system of cleanliness. The strong snuffing up and down of water in the nostrils is too forcible for that sensitive organ of smell, and no nasal douche should ever be used for the same reason. The above gentle flushing system is confidently urged as the most efficient and least harmful method of cleansing the nostrils.—*The Herald of Health*.

ANTI-TOXIC ACTION OF THE LIVER.—

It has been established for some time, says the London *Lancet*, that the liver has a power of retaining certain poisonous alkaloids in high proportion and in their most active state, when injected into the circulation. Dr. Schupfer, of the University of Rome, Italy, has now shown by experiments on frogs that, by intrinsic action, due to the specific activity of its cellules, the organ diminishes the toxic power of the alkaloids with which it is brought in contact, not only those introduced from without, but those elaborated within the body, as from disease. The importance of a normally working liver is thus more apparent than ever.—*Med. Times*.

WHY PEOPLE BECOME DEAF.—It has taken the medical world a great many years to discover that loss of hearing is almost invariably caused by some disease of the throat or nose or both. But very recent researches in these fields have demonstrated this fact beyond question, and it is now admitted by the more advanced medical men that, aside from rupture of the ear-drum, there is scarcely a symptom of defective hearing which is not traceable directly to the condition of the nose and throat.

In view of the new discoveries, ear

specialists are finding their occupation gone, save as they make their particular branch an assistant in further investigation. It is said, as we have already pointed out, that the use of smelling-salts is one of the most prolific causes of deafness, operating by weakening the olfactory nerves, and through them the auditory system. All strong or pungent odors should be avoided as far as possible, especially those which act upon the secretory processes, and, as the popular expression goes, "make the nose run."—*Medical Brief.*

Notes of Practice.

CROUP AND CROUPOUS DISEASES CURABLE BY PILOCARPINE.—Carl Sziklai, M.D. (*Int. Med. Mag.*), considers croup as a disease distinct from diphtheria. He speaks of the well-known action of pilocarpine on the sweat and salivary glands, and concludes that it should have a similar effect on the glands of the mucous membranes. This conclusion he has proved practically to his own satisfaction. His doses of pilocarpine [presumably the hydrochlorate.—J. P. C.] are: 0 to 1 year, .01 to .02 gramme *pro die*; 1 to 3 years, .02 to .03 gramme *pro die*; 3 to 6 years, .04 gramme *pro die*; 6 to 10 years, .05 gramme *pro die*; 10 to 15 years, .06 to .07 gramme *pro die*; adults, .08 to .1 gramme *pro die*.

His conclusions are: 1. Pilocarpine is a specific for croup in the widest sense of the word, therefore for all croupous diseases, e. g., croupous laryngitis, croupous bronchitis, croupous pneumonia, croupous nephritis, etc. 2. Its action begins at once. In laryngitis crouposa cure is to be obtained in a few

hours; in pneumonia crouposa, in two or three days. 3. It makes no difference whether it is given by the mouth or subcutaneously. It can be given in suppository. 4. In urgent cases subcutaneous injection is to be preferred. 5. The duration of the disease is notably shortened by the use of pilocarpine, and the mortality reduced to *nil*. 6. In suitable cases, given early, it has a preventive action. 7. It can be given up to twice the official dose without fear of any ill effects.—*Nash. Jour. Med. and Surgery.*

THE TREATMENT OF FURUNCULOSIS.—Van Hoorn (*Monatsh. f. prakt. Derm.*, Bd. xix, No. 1, July 1st, 1894) treats furunculosis as follows: He first washes the whole of the patient's body with potash soap and tepid water; then he asepticises the boils and the surrounding parts with a 1 in 1,000 sublimate solution, afterwards covering them with a mercurial and phenol plaster, which is changed every day. If the furuncles

burst, the contents are squeezed out and the cavity washed with sublimate. The results are excellent. If there was no fluctuation in the furuncles, absorption takes place very quickly. If there was fluctuation, absorption is rare, but the disease does not spread; the boil opens and rapidly cicatrizes. During the treatment no further boils develop.—Loewenberg (*Bull. Med.*, quoted by Brocq, *Jour. Cut. and Gen. Urin. Dis.*, October, 1894) recommends the use of the actual cautery for the abortive treatment of boil. For this purpose he employs galvanocautery irons ending in fine platinum points about a centimetre long and a millimetre in diameter. As soon as a furuncle shows its presence by a red areola surrounding a hair and by special sensitiveness to touch, he introduces the platinum point, brought to a white heat, into the centre of the areola, causing it to penetrate deep enough to act upon the whole length of the hair follicle, in the supposed course of which it is made to enter. The incandescent point is left for an instant in position and then withdrawn. When the furuncle has already begun to form we may still attempt to abort it; but we must in this case prolong the cautery so as completely to carbonize the small drop of pus which has already been produced. Brocq points out that French dermatologists have for a long time had recourse to the actual cautery applied by means of finely-pointed thermo-cautery tips, or, better still, with the electro-cautery, for the treatment of rebellious acnes, especially where there are large lesions on the face and trunk. In this way they not only succeed in curing the lesions more rapidly, but arrest the formation of new ones. It would seem as if the inoculable germs which produce acne are thus destroyed.—*British Medical Journal*.

EPISTAXIS.—E. Baumgarten, of Budapesth, records 250 cases and his conclusions as to treatment. He finds the following changes in the vessels as occasional causes: (1) Traumatism, (2) erosion, (3) increased tension, (4) want of elasticity, (5) permeability of vessel walls. Singly or combined these produced epistaxis (*a*) at a seat of predilection in a healthy person, (*b*) following on a nasal affection, (*c*) because of a diathesis. The seats of predilection (points of Kisselbach) are most often in front where the cartilaginous septum joins the membranous part (*columna nasi*). Having once bled, these points remain as places of less resistance; other regions seldom bleed. Of the 250 cases, 150 were males, 100 females. The age of puberty showed the greatest liability—66 males and 33 females, respectively. At 40 the number of cases in men showed a notable decrease; not so in women, probably owing to the menopause. At ages over 50 in men arteriosclerosis is mainly responsible. The right side bled in 101 cases, the left in 93, both in 56. In 234 cases out of the whole number tiny varicose vessels or erosions gave forth the stream, the arteries only 11 times. The cartilaginous septum was the most frequent seat of the bleeding—219 times altogether. The nostril seldom presented any other alteration except the bleeding point. In treatment the aim is not only to stop the bleeding, but to prevent recurrence. This is done by replacing a weakened point with a healthy cicatrix. (1) If a patient is not bleeding, but has recently done so, search the inside of the nose with a strong light, and on the fore part of the septum mostly several small red vessels will be seen, indicating the affected spot. If bloody crusts obscure these, gently remove them, and then thoroughly cauterize and destroy the

points with a galvanic cautery or a chromic acid crystal on a silver probe.

(2) If the patient be bleeding, wash out the nostril with hot water, dilate it, and introduce a large tampon of carbolized wool in front, then compress the ala upon it with the finger. Remove the plug shortly to see the bleeding spot, then reapply a second tampon. Again remove, and cauterization will usually be easy. (3) Where the blood traverses the tampon, or flows into the pharynx, wash out with hot water, and pack the whole nasal fossa through a speculum with strips of iodoform gauze, a finger's breadth in water. When needful to remove, soften them with hot water, and gently draw them out. If there be no further bleeding, cauterize as above. If there be bleeding again, pack with strips; but this is seldom necessary. Bellocq's method is far inferior, both in efficacy and comfort to the patient.—*Ibid.*

THE ANTISEPTIC TREATMENT OF SCARLET FEVER. - Dr. W. Jamison (London Practitioner) Vol. LI., p 454, from the *Medical Magazine*) says that there appears to be four points requiring consideration: (1) The course of the infectious principle, (2) the treatment of the throat and mucous membranes, (3) the management of the skin, (4) the value of the "so-called" complete isolation alone, as compared with antiseptic measures and restricted isolation.

(1) There are three routes by which scarlatinal poison can enter the system: (a) by direct inoculation, which is rare; (b) by being swallowed, a more common source, the medium frequently being milk, a fluid in which the virus grows rapidly; (c) by inhalation, the most common method of transmission. Probably in all cases the first symptoms are manifested in the throat; the second, usually within twenty four hours, as the erup-

tion on the skin. It is almost certain that during the period of pyrexia the virus is multiplying in the blood, and is in process of being conveyed to the under surface of the skin. Deposited beneath the epidermis, it rises through its layers and is finally cast off in flakes of exfoliating cuticle. Dr. J. has seen desquamation commence on the fourth day, but in the majority of instances it manifests itself from the ninth to the eleventh day. The process of "peeling" is not completed, if uninterfered with, until the end of the eighth week. It is never absent in a genuine case of scarlet fever.

(2) The best application to the throat is a spray of peroxide of hydrogen, ten-volume strength, repeated from three times daily to once in two hours. It should be continued, the intervals being extended, till its application no longer induces pain.

(3) As regards the management of the skin, in the stage of exanthem we must favor the development of the rash by warm baths, which are best given at night, after which the entire surface must be smeared with eight ounces of almond or olive oil, containing a fluid drachm of carbolic acid and two or four fluid drachms of oil eucalyptus. When desquamation commences the warm baths must be supplemented by soap. Keep the patient in bed for three weeks, who should not be allowed to mix with others until peeling is completed and the hair washed several times.

(4) Dr. J. is of the opinion that isolation alone cannot prevent infection, but no risk exists if the antiseptic precautions described are attended to. The nurse ought to wear a cotton wrapper, which can be laid aside when she leaves the room. The bed and body linen should be immersed in carbolic solution

after being taken from the room.—*The Medical Progress.*

SCIATICA.—The hypodermatic injection of sulphuric ether is recommended as being very effective in the treatment of sciatica. The drug is injected into the painful points (of Valleix), beginning with the highest and proceeding gradually downwards, in doses of one to two syringefuls. It is injected daily and cures result in from four to seven days.

COMPOUND TINCTURE OF BENZOIN IN SURGERY.—Dr. J. L. Garland Sherrill highly recommends compound benzoin tincture in cases of injuries about the hands, especially those by machinery. The manner of application is as follows: After careful cleansing and disinfection of wound and complete arrest of hemorrhage, a layer of absorbent cotton is placed around the wound, over which the tincture is poured until the cotton is saturated. This forms an air-tight aseptic coating after evaporation of the alcohol. This dressing is claimed to be very advantageous in the practice of the country physician, because it need not be frequently changed and can sometimes be left on for a week without inconvenience. If it becomes loose, a little more benzoin tincture may be added by the patient.—*Amer. Therapist.*

TREATMENT OF CYSTITIS IN THE FEMALE.—According to Dr. J. C. Hersler (*Univ. Med. Mag.*), the indications for treatment are as follows:

1. To remove any discoverable source

or sources of irritation which act through the medium of the urine. This may be affected by a milk diet and a discontinuance of the use of acids, pepper, etc. Any mechanical source of vesical irritation should receive appropriate treatment.

2. The urine should be rendered bland by the use of a milk diet, the ingestion of considerable quantities of water, the administration of potassium citrate, if the urine be too acid, or of boric acid if it be alkaline.

3. Pelvic congestion should be relieved by hot vaginal douches, placing the patient in the knee-chest position, and the correction of constipation.

4. The inflamed cystic mucous membrane may be relieved by the administration of boric acid, ol. santali, copaiba, or creasote by mouth; or the use of injections of boric acid, carbolic acid, or nitrate of silver in suitable strengths.

5. The patient's general health should be improved by tonics, etc.

6. Rest in bed, especially in all acute cases, is absolutely imperative.

While advocating direct local treatment for cases of cystitis which do not not readily respond to ordinary therapeutic measures, the writer advises that it should be employed with judgment and caution.—*Int. Jour. of Surgery.*

FOR ECZEMA.—

R.—Acidi salicylici..... 3 j.
Zinci oxidi..... 3 iiij.
Adipis læ hydrosi..... 3 j.

M.—Fiat unguentum.

S.—To be applied daily.

—*Provincial Medical Journal.*

Miscellaneous Items.

Under this head space will be given, free of cost, to those *paid-up* subscribers who desire to change their location, or to dispose of practice or property. One insertion will be allowed, but inquiries must not be ordered addressed to this office.

Any news connected with professional men and matters in North and South Carolina will be appreciated by the Editors.

Dr. H. A. Kelly has removed to 1406 Eutaw Place, Baltimore, Maryland.

CLAUD BERNARD.—A statue of Claud Bernard has recently been unveiled in Lyons, in the neighborhood of which city Bernard was born in 1813.

We are in receipt of one of the handsome and convenient diaries for 1895 from the McArthur Hypophosphite Co., of Boston. It is vest-pocket size, gilt on red edges, and contains various data of use to the physician.

WHY, OF COURSE.—Stivets—The German investigators are experts in bacillus hunting, aren't they?

Whiffet—Well, wouldn't you naturally expect a germ-man to cholera microbe? —*Exchange*.

MARRIED.—Dr. W. F. Faison, of Jersey City, N. J., was married on the 29th of October, to Miss Jessie M. Butler, of that city.

Dr. Frank H. Russell, of Wilmington, was married on the 31st of October, to Miss Grace Lilly, of Wilmington.

A CONDEMNED BIBLE.—At the recent sessions of the Central Criminal Court a prisoner was convicted of a crime which need not be specified; suffice it to say that a girl of the tender age of 11 years was, in consequence of that crime, infected with the virus of syphilis. The oath was administered to her in the customary way, whereupon Mr. Justice Collins very promptly and properly or-

dered the book to be destroyed. We have often insisted on the danger of the indiscriminate swearing of witnesses on the same volume of Holy Writ. It is matter for congratulation that the knowledge of this danger is reaching beyond the medical profession, and more so that so high a personage as one of Her Majesty's judges has publicly recognized the fact.—*Lancet*.

THE MEDICAL RAVEN.

Once upon a midnight dreary,
The doctor slumbered weak and weary,
And all the town could

Hear him snore.

While he lay there sweetly napping,
Suddenly there came a tapping,
Like a ramgoat madly rapping
His hard head

Upon the door.

"Get thee up," a voice said loudly,
"Come in haste," it addéd proudly,
Like a man who owned a million
Or much more.

But the doctor never heeded:
Back to dreamland fast he speeded,
For such men as that he needed
In his practice

Nevermore.

For long months that man had owed him,
Not a cent he'd ever paid him,
And the doctor now will dose him

Nevermore.

—*Med. and Surg. Reporter*.

THE DOCTOR'S REWARD.

The doctor sat in his room one night,
Dejected, worn and sad ;
His rounds had not been overbright,
And business had been bad.
Some puzzling cases taxed his brain—
His wits were sorely tried ;
He managed just his bread to gain,
But little else beside.

His practice barely kept his home,
His troubles broke his rest,
Dread poverty seemed all his doom,
Altho' he strove his best.
He ne'er refused t' attend a call,
Regardless of his due :
"I'll do my best, and that is all
The best of all can do."

The night bell rang, he quickly ran,
A boy stood there, aghast—
"Some ruffian had just stabbed a man,
And he was dying fast ;
The bleeding soon must lay him low—
There was no time to spare."
The doctor deftly stayed the flow,
And tied the artery there.

So the man was saved thro' the doctor's
skill,
As happens every day ;
So, when he claimed his modest bill,
Cold thanks were all his pay.
And the doctor started home once more,
With a face more brave and bright :
"I came out poor and I go home poor,
But I've saved a life to-night."

—*Doctor's Factotum.*

The Chinese war has increased the price of opium 30 p. c. The new tariff bill has decreased the price of castor oil, cod-liver oil, sulphur and camphor, soda and strychnine from 25 to 50 p. c.

The *Medical News* has collected a few of the casualties from foot-ball during

the week including Thanksgiving Day. Here they are: B. Foote, violently insane from injuries received in a foot-ball game; Daniel McTiernam, 14 years old, died from injuries sustained in a rush; Walter Blackburn, 19 years old, while interfering, was thrown heavily to the ground, and five or six other players fell upon him—he died; Fred. Opperman, of Harlem, died from his injuries, and the club of which he was a member has disbanded for the season; a player in a game at the Louisville Male High School had both bones of one leg fractured; Stephen Brady, of the high school at Putnam, Conn., was injured and is not expected to live; Harry Rider was severely injured and became delirious, and the physicians say the kick has caused a clot of blood at the base of the brain; Dr. J. A. Graham, of Lexington, Va., reports five cases of fracture and one death from his section; Hall Stockton, of Philadelphia, was taken from the field unconscious and is not expected to live. Then, in a game between "teams" of two of the leading seats of learning in this country, 7 men out of 22 had to be taken from the field—a larger proportion of casualties than among the Federals at Cold Harbor—the bloodiest battle of modern times—and much larger than at Waterloo or Gravelotte, so the *News* says. The press despatches of the 8th state that one player, who sustained a severe injury of the spine, cannot live. And this is the kind of sport that takes from their studies men, some of whom, doubtless, are receiving their education at the State's expense.

Professor Klebs is a guest of Dr. Karl von Ruck, at the Winyah Sanitarium, Asheville. We are pleased to be able to state that we will publish in our issue of January 5th a very interesting and instructive paper from Professor

Klebs on the "Present Status of the Specific Treatment of Diphtheria."

Dr. C. L. Minor, of Washington City, will remove to Asheville, this State.

St. Luke's Hospital, New York, is about to move into its new quarters.

The press despatches announce that Surgeon Fairfax Irwin, of the Marine Hospital Service, is suing for divorce from his wife—charges not stated.

Dr. John Miller Brown, ex-Surgeon General of the Navy, suffered a stroke of paralysis December 6th. Dr. Brown was 70 years old and the paralysis caused death the following day.

The President, in his Message to Congress, makes a strike at those business houses which abuse the law which provides for the transportation of legitimate newspapers and magazines through the mails at the rate of one cent per pound. He says: "The extension of the meaning of these terms from time to time have admitted to the privileges intended for legitimate newspapers and periodicals a surprising range of publications and created abuses the cost of which amounts in the aggregate to the total deficiency of the Postoffice Department. Pretended newspapers are started by business houses for the mere purpose of advertising goods, complying with the law in form only, and discontinuing publication as soon as the period of advertising is over. 'Sample copies' of pretended newspapers are issued in great numbers for a like purpose only. The result is a great loss of revenue to the Government, besides its humiliating use as an agency in carrying out the scheme of a business house to advertise its goods by means of a trick upon both its rival houses and the regular and legitimate newspapers. . . . The Post-

master General predicts that if the law be so amended as to eradicate these abuses, not only will the Postoffice Department show no deficiency, but he believes that in the near future all legitimate newspapers, periodicals and magazines might be properly transmitted through the mails to their subscribers free of cost."

Dr. Ed. F. Parker, of Charleston, has been made Professor of Physiology in the Medical College of the State of South Carolina.

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With the next issue we will begin the publication of a stenographic report of the recent meeting of the Southern Surgical and Gynecological Association at Charleston. The report will contain abstracts of all the papers read at this important meeting, with the discussions.

FOR SALE.—Practice and property in a prosperous North Carolina town of 500 population. The town is situated on the railroad in one of the finest farming sections of Eastern North Carolina. Will sell at a sacrifice and introduce purchaser. Address "Q," care NORTH CAROLINA MEDICAL JOURNAL.

In the last number of the *Alienist and Neurologist* an item appeared stating that since the introduction of the monogram tablets of Antikamnia, that would be the only form in which it would be offered hereafter. We are informed by the manufacturers that this statement, while made in good faith, had no foundation, for this popular remedy will still be offered in powder as heretofore.

TEA INTOXICATION.—To speak of this beverage as "The cups which cheer but not inebriate," must be regarded as an instance of purely poetic license.

As the best work of the poet is likely to be produced when he is thoroughly intoxicated with his subject, this line may be regarded as of such origin. Certainly it belongs to the realm of poetic fancy rather than to that of scientific fact. And it may be claimed that its author, by his subsequent melancholia and suicide, demonstrated the danger of indulgence in this direction.

No one who has practiced among the poor of a large city can have failed to recognize the baneful effects of excessive tea-drinking, especially among sewing women. James Wood (*Medical News*) says:

Of 1,000 consecutive cases applying for general treatment at our largest dispensary, 100, or 10 per cent., were found to be liberal indulgers in tea, and suffering from its deleterious effects, and no one of which came for treatment of the tea habit, but for various other complaints. They were loth, when apprised of the cause of their illness, to believe that such a harmless household commodity ever produced any bad effects. Of these 100 cases, 20 per cent. complained of persistent dizziness, 19 per cent. of indigestion, 45 per cent. of headache, 20 per cent. of despondency, 19 per cent. of palpitation of the heart, and 15 per cent. of insomnia.

When tea has been used for a considerable period in excess and its detrimental action has been constant, we have well-defined symptoms supervene, a few of which are such as vertigo, mental confusion, sensible palpitation of the heart, restlessness, insomnia, hallucinations, "nightmare," nausea, neuralgia, anorexia, constipation, prostration and anxiety, and a peculiar kind

of intoxication ending after hours of vigil in a torpor from exhaustion.

What worse line of symptoms could follow the use of a beverage so commonly employed, it is hard to imagine, and that many people use it to excess is unquestionable. Many have confessed to an inability to "get through the day" without copious imbibitions of what is, in many cases, a strong decoction. Some drink every twenty-four hours as much as fifteen pints, and some there are who are unable to judge of how much they consume.—*Philadelphia Polyclinic*.

HEALTH OF WILMINGTON.—The following is the mortuary report for Wilmington for the month of November, 1894:

	Whites.	Col.	Total.
Population.....	9000	13000	22000
Deaths.....	6	17	23
Death rate represented..	8.	15.7	12.5

Metecorological.—Mean temperature, 54°; highest temperature, 76°; lowest temperature, 29°; number of clear days, 18; number of partly cloudy days, 4; number of cloudy days, 8; number of days on which rain fell, 8; total precipitation, 1.97 inches; mean barometer, 30.21 inches.

The New York City Board of Health, under direction of Drs. H. M. Biggs and W. H. Park, have thirteen horses and some other animals in process of immunization against diphtheria. The inoculations of toxine were begun seven weeks ago, and the Board will probably be ready to furnish the first supplies of antitoxin serum before the end of January. The New York Board was enabled to begin its operations thus early through the generous act of a private citizen who advanced the necessary funds. The appropriation of \$30,000, which the Board has asked for, would not be available through the ordinary

channels before January. There is no question, as we have before stated, but that the production and quality of such agents as the antitoxines, must be under

the supervisory control and guarantee of some responsible organization.—*Exchange.*

* * * * *

Reading Notices.

SANMETTO IN GENITO-URINARY DISEASES.—I can say that, during a thirty-four years' practice of medicine, I have not found a remedy that equals SANMETTO in the treatment of all genito-urinary diseases of men and women. I have used over fifty bottles of SANMETTO. IRA D. HOPKINS, M.D.

Utica, N. Y.

CASCARA SAGRADA FOR THE ELIMINATION OF URIC ACID.—It seems to be the accepted opinion that the pathology of uric acid is more a matter of defective elimination than of excessive formation. Osler says: "Certain symptoms arise in connection with defective food or tissue metabolism, more particularly of the nitrogenous elements; and this faulty metabolism, if long continued, may lead to gout, with uratic deposits in the joints, acute inflammations and arterial and renal disease."

Not getting the desired results, I was led to drop all the so-called antilithics and rely simply and solely upon a single remedy—Cascara Sagrada. Repeated trials have convinced me that the faulty metabolism is more quickly remedied with this drug alone than with any other or combinations.

Mrs. G., aged fifty-five, was for years subject to uric-acid storms, and without getting relief. I exhibited the aromatic fluid extract Cascara made by Parke, Davis & Co., in ten to fifteen-drop doses, two or three times daily as demanded, finally settling down to one single dose at the close of the day. The effect was not at once apparent, but within two weeks there was marked amelioration of the aggravated symptoms, and in four weeks the swollen joints had almost resumed a normal appearance, the soreness having nearly disappeared. At this

writing (two months having elapsed), there is no complaint whatever, but the remedy is continued. No change was made in the diet, as I desired to more fully test the remedy, and am fully satisfied that the good results were due solely to the Cascara. I have tried other brands of Cascara, but they have not been satisfactory, hence I have come to regard the fluid extract above referred to as the only one upon which I can confidently rely. It never fails, hence my preference.—DR. W. H. WALLING, in the *Medical and Surgical Reporter*, July 14th, 1894.

In many cases of chronic bronchitis and bronchorrhœa, the Emulsion of Petroleum is of undoubted value. The following combination has been found to act well in these cases:

R.—Terpinolis 3 ss
Olei eucalypti. 3 i
Syrupi codeinæ
Syrupi toluani, aa. 3 i
Emulsio petrolei (Angier)
q. s., ad. 3 vi
Misce et fiat emulsio secundum artem.
Signa—Dessertspoonful one hour after each meal.

The cough and expectoration grow less and the appetite and strength improve.

For asthma and spasmodic cough great benefit has been derived from the emulsion in the following combination:

Elixir chloroformi comp. (McNutt) 3 ss
Extracti pinum canadensis. gr. xii
Extracti cannabis indicæ. gr. iij
Emulsio petrolei (Angier) q. s., a. d. 3 vi
Misce et fiat emulsio secundum artem.
Signa—Dessertspoonful every one to three hours during an attack, and after meals subsequently for a month or two.

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" Castor, ½ grain. | M. 1, one pill.

Lady Webster's Laxative Pills. This is an excellent combination officially designated as Aloes and Castor U. S. P. We take very great pleasure in seeing physicians prescribe the same more liberally, as they are very excellent as an aperient for persons of full habit or gouty tendency when given in doses of one pill after dinner.

PIL. ANTIDYSPEPTIC.

(WM. R. WARNER & CO.)

(Dr. Fothergill.)

℞—Pulv. Ipecac. ⅔ gr. | Strychnine.....1.20 gr.
Pulv. Pip. Nig. 1½ gr. | Ext. Gentian..... 1 gr.

The above combination is one of Dr. Fothergill's receipts for indigestion, and has been found very serviceable. In some forms of Dyspepsia it may be necessary to give a few doses, say one pill three times a day, of Warner's Pil. Anticostipation.

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A Valuable Aid to Digestion.

R—Pepsin Coct.....1 gr. | Ginger-be.....1-16 gr.
Pv. Nux. Vom. ¼ gr. | Sulphur..... ½ gr.

IN EACH PILL.

This combination is very useful in relieving various forms of Dyspepsia and Indigestion, and will afford permanent benefit in cases of enfeebled digestion, where the gastric juices are not properly secreted.

As a dinner pill, Pil. Digestiva is unequalled, and may be taken in doses of a single pill either before or after eating.

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Sulphite Soda..... 1 gr.
Salicylic Acid..... 1 gr.
Ext. Nux. Vomica..... ¼ gr.

Dose, 1 to 3 Pills

Pil. Antiseptic is prescribed with great advantage in cases of Dyspepsia attended with acid stomach and enfeebled digestion following excessive indulgence in eating or drinking. It is used with advantage in Rheumatism.

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EACH PILL CONTAINS

Sulphite Soda..... 1 gr.
Salicylic Acid..... 1 gr.
Ext. Nux. Vomica..... ¼ gr.
Powd. Capsicum..... 1-10 gr.
Concentrated Pepsin..... 1 gr.

Dose, 1 to 3 Pills.

Pil. Antiseptic Comp. is prescribed with great advantage in cases of Dyspepsia, Indigestion and Malassimilation of food.

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Medical Properties—Tonic, Laxative. Dose, 1 to 2 Pills.

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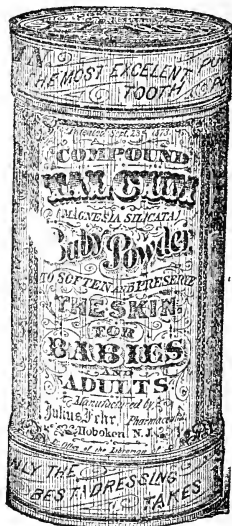
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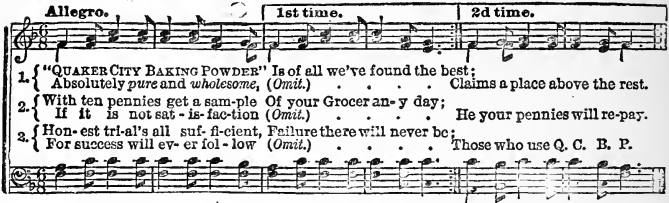
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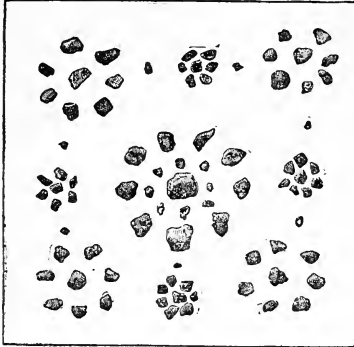


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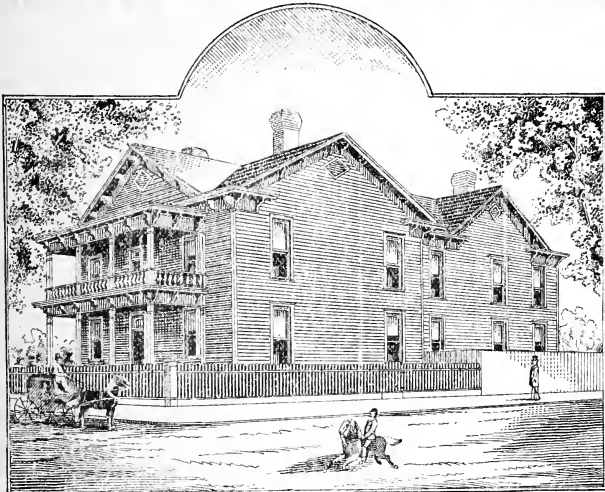
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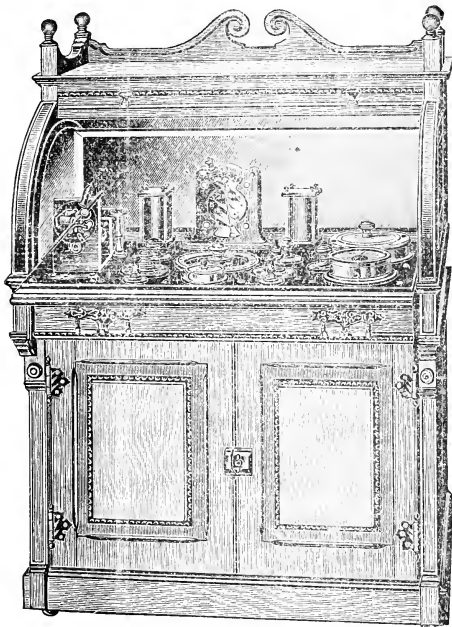
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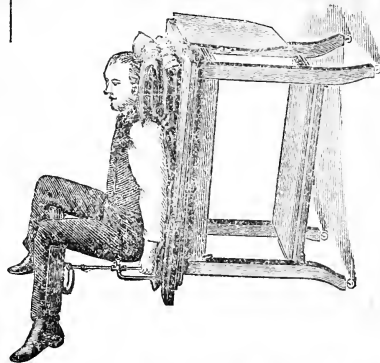
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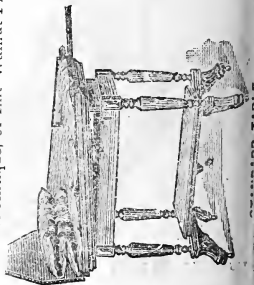
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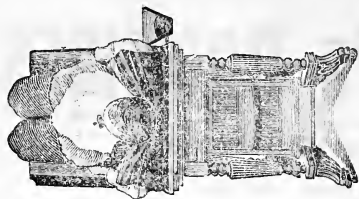
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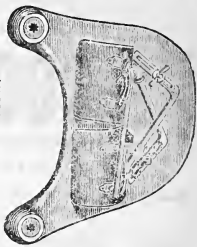
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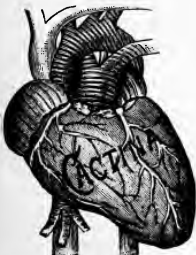
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